All Clear—"TripleX" Safety Glass

THE SPHERE, FEBRUARY 10, 1940
With which is incorporated "BLACK & WHITE." 1/-

THE SPHERE

Vol. CLX No. 2090 WITH WHICH IS INCORPORATED THE GRAPHIC FEBRUARY 10 1940

THE ARISTOCRAT OF CIGARETTES

DE RESZKE —of course!

FIGHT WAR-STRAIN WITH BRAND'S ESSENCE

The non-alcoholic stimulant which proved its worth in the last war, effectively combats the physical and nervous strains of the present time.

BRAND'S CHICKEN OR BEEF ESSENCE

USE IT YOURSELF—SEND IT TO FRIENDS IN THE B.E.F.

Obtainable from all chemists

THERE'S GOOD HEALTH IN YOUR TEA CUP WHEN YOU DRINK....

THE DOCTOR'S CHINA TEA

Sold only in ¼-lb. and ½-lb. packets and 1-lb. canisters. Priced at 3/8, 4/4 & 4/10 per lb.

HARDEN BROS. & LINDSAY Ltd., 30 Mincing Lane, London, E.C.3

CVS-210

THE ARISTOCRAT OF LIQUEURS

Drambuie

THE DRAMBUIE LIQUEUR CO., 12, YORK PLACE, EDINBURGH

When you are dining out ask for Drambuie. You will enjoy its exquisite flavour and intriguing bouquet.

DEAF EARS HEAR BETTER WITH ARDENTE

War-time needs with Sirens and Black-out make good hearing more essential than ever and the British "ARDENTE" is your way to Better Hearing whether hard-of-hearing or even so-called stone deaf—for Church, Home, Radio, Talkies, Business.

CALL FOR FREE TEST—or write for "Medical Reports" and details of free test in your own home.

Ardente, Ltd., 309, OXFORD ST., LONDON, W.1 opp. John Lewis A.R.P. Shelter in Building. Mayfair 1380/1718/0947

Ardente FOR DEAF EARS

THE WORLD'S GREATEST HEARING SERVICE

Permanent Service Bureaux at Birmingham, Bristol, Cardiff, Exeter, Edinburgh, Glasgow, Leeds, Leicester, Liverpool Manchester, Newcastle, Southampton.

Good Health

WILLIAM YOUNGERS Scotch Ale

Brewed in Edinburgh

Good Value

Happier Children . . .

Children saved from unhappiness by the N.S.P.C.C. number over 5,000,000 since this National Voluntary Society was founded in 1884.

Please Help this great work for the Nation's Children which exerts a vast influence in overcoming conditions threatening the physical, moral and mental welfare of the young.

N-S-P-C-C

★

Gifts will be welcomed by Wm. J. Elliott, O.B.E., Director, National Society for the Prevention of Cruelty to Children, Victory House, Leicester Square, London, W.C.2

48 PAGES OF PICTURES

8 PAGES IN COLOUR

A PICTORIAL RECORD OF THE GILBERT AND SULLIVAN OPERAS

This 48-page Souvenir, published by "The Sphere," is ready now and deals comprehensively with the most popular of the Gilbert and Sullivan Operas. EIGHT PAGES IN FULL COLOUR SHOWING SCENERY AND COSTUMES WILL BE OF TREMENDOUS VALUE TO THE AMATEUR COMPANY. You are advised to order your copies immediately.

Price 3/10 per copy, post free.

Orders with remittance should be sent to the Publisher: THE SPHERE, 32, ST. BRIDE ST., LONDON, E.C.4

ALL CLASSES OF INSURANCE TRANSACTED

CAR & GENERAL INSURANCE CORPORATION LTD.

83, PALL MALL, LONDON, S.W.1.

PRICE ONE SHILLING

REGISTERED AS A NEWSPAPER FOR TRANSMISSION IN THE UNITED KINGDOM

Offices: 32-34, St. Bride Street, London, E.C.4

OFFICERS' UNIFORMS by HECTOR POWE

Officers can entrust the tailoring of their Uniform to Hector Powe with complete confidence. They are assured of a consistently high standard of tailoring and a thorough appreciation of the need for meticulous accuracy in detail.

UNIFORMS CAN BE SUPPLIED TO MEASURE WITHIN THREE DAYS, OR READY FOR IMMEDIATE WEAR.

Representatives sent to you on request. Prices are essentially reasonable—write for lists.

A.T.S., W.A.A.F., W.R.N.S. Officers' Uniforms, Greatcoats, etc., supplied.

HECTOR POWE

NAVAL, MILITARY, R.A.F. AND CIVIL TAILORS,
165, REGENT STREET, LONDON, W.1.
Regent 4060 for London Branches.

Also at: Glasgow, Edinburgh, Newcastle, Sheffield, Hull, Manchester, Birmingham, Coventry, Bournemouth, Belfast, Brighton, Plymouth, Bristol, Cardiff, etc.

Let's see!—

ROYAL "EDISWAN" LAMPS

Obtainable at all electrical suppliers

L.I

SOUND SECURITY

More important than ever to-day is the significance of the name 'Player' to cigarette smokers. It is a guarantee that quality and purity remain unchanged.

MEDIUM OR MILD
PLAIN OR CORK TIPS
10 for 7°
20 for 1/1½°

Player's Please

IT'S THE TOBACCO THAT COUNTS

NCC516.D.

The drawing on the left is a reproduction of the original advertisement for 'Viyella' Khaki Shirts published during the Great War.

The Mills that make 'Viyella' were established a generation before Waterloo was fought.

'VIYELLA' for Service

As in the Great War, so now—'Viyella' Khaki Shirts are winning fresh distinction daily. They are guaranteed not to shrink or fade and to withstand the harshest wash and wear. Nor are they expensive, for they repay their cost with interest in long and faithful service.

'Viyella' reg.

KHAKI SHIRTS 15/-

(OR WITH TWO COLLARS 18/6)

EQUALLY GOOD—'VIYELLA' KHAKI SOCKS 2/6 and KHAKI TIES 2/6

WILLIAM HOLLINS & CO. LTD. DAY NIGHT WEAR VIYELLA HOUSE, NOTTINGHAM

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly
London, February 10, 1940

THE NERVE CENTRE OF LONDON'S CIVIL DEFENCE

The Central Control Room from which the whole A.R.P. Organisation is Controlled

In the event of an emergency the London Area's Civil Defence organisation is controlled from one central Control Room. On receipt of an air raid warning on the teleprinter, direct from the Fighter Command, the watch on duty immediately go to "battle" stations. From this room there is direct communication to all A.R.P. group headquarters, Scotland Yard, and the Home Office. From here the Operations Officer can transfer as many A.R.P. forces as necessary to cope with severe damage in any one quarter—this is known as "mutual assistance." The Commissioners in charge of this whole organisation are Sir Ernest Gowers, K.C.B., K.B.E., and Admiral Sir Edward Evans, K.C.B., D.S.O., LL.D. In the picture above, the Operations Officers (in the centre) and the staff are seen at work in the Control Room, where the huge "Current Events" and "Damage Maps" are prominently displayed

Postage—Inland, 1½d.; Canada and Newfoundland, 1½d.; Elsewhere Abroad, 2d.

LEAVE DEFERRED BRINGS JOY AT LAST

Leave from France is just as sweet as ever it was, although there is not the violent contrast of the plum-and-apple days. Leave, too, has been, for various reasons, deferred from time to time, which makes the homecoming even more pleasant

A WAR NEWS

32–34, ST. BRIDE STREET, E.C.4
Wednesday, February 7, 1940

"SURSUM CORDA."—It is a very good rule in war-time (and we elders are experienced in war, having passed the best years of our lives in that blessed state) that, when your spirits temporarily sink (as a result of, say, the chaos and waste of desperate weather conditions combining with the constant evidence of the chaos and waste of war) to remind yourself that the enemy is in the same boat and probably (indeed, in the present war, certainly) in the more l-aky and exposed end of the boat. Then, when you consider your own little troubles, you can treble them, add knobs to them, and lay them with confidence on the enemy's shoulders. We've been through a bad spell, we are having a nasty winter and those dark days which are inevitable in war. *Sursum corda.* The spring is not far behind now. Life is never easy or pleasant in war, but longer days and warmer days, while they provoke a "certain activity," do remove a hundred domestic difficulties. And remember this, too. Unlike in the late war, a clear sky is no longer a favourable occasion for enemy bombers. They prefer to-day the shelter of cloud formations. And the blue skies will be coming again soon. Be cheerful, Sir, and keep up your heart and your faith.

SIGNS OF ACTIVITY.—I have once or twice contended that it did not need half the force of the Government's "propaganda potential" to convince us that with the spring we should taste real warfare. I have argued that the average man is neither complacent nor shortsighted, nor an ostrich, nor a rabbit, nor a sheep, nor a goat, nor an ass. We know where we are and what we must expect. The ministerial opinion of the "average man" is in my opinion couched unnecessarily low. Now there are clear signs that activity of a wider kind will not be deferred much longer. Hitler between his whines promises us hell. We see Goebbels getting busy again with his weapon sharpened for a new campaign to key up his nationals. We note a German airman or two trying their machine-guns on an inland target. We pore over photographs of the new air bases closer to Britain, and we discuss the nature of Hitler's new and (this time unanswerable) secret weapon. We are, in short, calm and in no sort of doubt that a nasty time will be had by all. But during these weeks and months of comparative immunity for civilians and for our land forces, I have sometimes wondered if we have not been wrong to let the "initiative" remain with the Nazis.

A DOLEFUL FICTURE.—The way things have gone, the picture has grown before Allied and neutral eyes that France and Britain are lambs awaiting the slaughter at the butcher's good time (when he has drained his last glass of beer). We are *cet animal, méchant* perhaps, who may defend himself if cruelly attacked, but will certainly wait to be poked before biting back. And even then, if poked brutally, will only nibble back like a little gentleman. That picture is widely recognised to-day, perhaps as a result of misapplied propaganda in Allied countries, and I do not think it is good for Allied or neutral morale. My own experience—1915–18—of Allied virility does not agree with it. There was no time in the late war in my experience when the best troops of England, Scotland, Ireland, Wales, France, Australia, Canada, New Zealand, and other units of the Empire were not much more than a match on land and sea and in the air for the cracks of Germany in courage, initiative, and tricks of the trade — man for man. The successors of the Guards and Line regiments, of the Canadian and Australian forces, of the XXth Corps of France are by all accounts not inferior to their fathers in these qualities, and are more wisely led. Our chemists and technicians are neither idle nor idiotic. If we do not give a Roland for a Nazi Oliver and, once the business starts, initiate a good many telling Olivers, I shall be surprised. I don't think the French are going to be velvet-gloved when the business begins in earnest, and I don't think the Empire airmen are going to fight with cameras and bales of newsprint, and I think the sooner we correct the idea that the Allies are a lamb tethered for the slaughter, the better it will be for all concerned and obliquely concerned. Some of us are getting heartily sick of this constantly developing picture of Nazi initiative and Allied apprehension. And it is one which would never have grown up if we had talked differently, or better still, talked less. When the burning minute breaks, we shall answer hell with hell and new weapon with new weapon and I don't think the Allies will be the first to cry Hold! Enough! We have knocked the stuffing out of the same bully within living memory and seen him whining and fawning. It seemed from his speech at Manchester that Mr. Churchill realised public feeling on this matter and sought to correct the unfortunate picture. So, too, did the Premier in his latest fine speech.

AND SO TO THE WAR AND THE PEACE.—And so this war will be fought to a finish and, when the end comes at last, it is not very likely that cool-headed, impartial neutrals, with withers unwrung, will settle for us all an equitable and lasting peace. The victors will not feel disposed to appoint as arbitrators those who proved themselves incapable of making up their minds on the rights of the present issue. If the Nazis were victorious, would they invite America to settle the terms of a fair peace which would enable France, Britain, Germany, Poland and Czechoslovakia to settle down to work together in reconstruction? And if France and Britain come out, as they will, on top, what then? America's contribution to the permanent peace of Europe in 1919 was so little believed in by America that she refused to have any part or lot in the application of her remedies. We are but on the threshold of our sacrifices and unfortunately the daily impression we obtain from America's reactions to the war lowers her in our opinion. The war on neutrals, the war on fisher folk and lightships, the mass murders in Poland and Czechoslovakia, these atrocities apparently do not decide for Americans the question of right and wrong in the issues of the present war. These acknowledged facts do not in America abrogate the law (which high heaven rejects) of nicely-calculated less or more. Human nature being what it is (and not likely to alter for the better during the present dog-fight), I personally cannot see that the Allies will invite anyone who sat on the fence to contribute one single point, let alone fourteen, to a permanent settlement. What restraint and unselfishness and Christianity and vision may go to the making of the next peace settlement will be contributed by those who fought upon St. Crispin's day and not by those who buried their heads in their pillows and waited for the dawn. And it remains to be seen how much Christianity and vision Hitler's murder policy and Goebbels' hate campaigns will leave us. It is a point which the Nazis may take note of a few months hence—and for the hopes of civilisation, the sooner the better.

IN AID OF THE FINNS A SUCCESSFUL CONCERT WAS GIVEN IN QUEEN MARY'S HALL

An international concert was held last week for the Finns in Great Russell Street. The conductor was Dr. Heinz Ungar, who once led the Berlin Philharmonic. Many well known Scandinavian personages were present, including H.E. M. Gripenberg, Finnish Minister (who is here seen buying a programme from a girl in costume), Countess Scheel, and Baroness Mannerheim, daughter of the Finnish Marshal

LETTER—No. XXIII

ALLIES AND NEUTRALS.—On paper, at any rate, we got on the wrong side of many of the neutrals of late. As regards America, paper "straws" don't indicate very clearly the set of the wind. I fancy the bulk of American opinion only dreads one thing more than a Nazi triumph and that is to be themselves drawn into the war, and perhaps they are right in thinking that they can keep out and with patience watch the Allies doing the necessary business. Meanwhile it is no doubt humiliating for the minority which still believes that black is black and white is white and that Christianity and morality do not admit a neutral tint, to hear the world speaking of a great democracy slithering between the poles of fear and moral rectitude in all their international relations. It somehow makes that statue of Liberty shrink in stature. But I fancy we are more like to have our tail twisted by Japan in the coming weeks. Japan is in a strong position to do a little bullying and hectoring and twisting of the lion's tail, and it is a recreation which will keep her discontented nationals from thinking too much and too near home, and if kept within bounds will stimulate her national morale.

THE WEATHER (CENSORED).—Now that the cold snap has temporarily broken, some reference to the late, remarkable cold spell may be released without fear of giving information to the enemy. The three-weeks freeze-up followed a shorter period of frost which had ended on Epiphany, January 6, with snow. The frost began again two days later and increased in strength until it reached 26 degs. of frost. The coldest day in my experience was January 20. On January 26, heavy rain came while still the ground was like iron, and continued for two days during which not one drop got through the soil and very little through the ice-bound pipes and drains. It lay like a lake on lawns and ran, where it could, down paths and roads and lanes, to lie on the fields in the valleys. Then it froze again in grim earnest and the result was a very rare phenomenon. One must go back to 1894–95, or perhaps to that terrible winter described in *Lorna Doone* (temp. Jacobus II). Water a quarter of an inch thick was frozen on every twig, leaf and wire. The roads were strewn every few yards with the tops of birches and firs, snapped clean off 12 ft. from the top. Roads and rails were impassable, the telephones down everywhere and with every gust of north-east wind the woods, frozen stiff, rattled like castanets. Not a gate or door could be forced open. There were no posts, no papers, no milk and no food deliveries for many hours. The long cold spell was remarkable for its sunshine record. Day followed day of deep blue sky and really hot sun which shone for six full hours. I note that on fourteen of those days we had what we call "luncheon in the open air," that is, at a table near the French windows opened wide to the blessed heat. It is rare to observe faces clearly sun-tanned in England in January. I blessed the man who built my ugly, convenient house. He or his architect had so planned things, so sunk his pipes and fixed his plumbing that not a pipe froze nor any gutter, and so sited his living rooms that by 11 o'clock each morning one could sit and work in May-day conditions and had throughout no need to light a fire anywhere in the house until tea-time.

DAMAGE IN THE WOODS.—I suppose so much damage to trees has not been caused in the memory of men living as by the late "silver thaw." Nature has pollarded very uglily 200 trees in my small wood. The weight of ice on the birch twigs has broken the tops clean off one tree in two and left the tops, like the Virgin of Albert, hanging downwards from the remainder. Nearby, an oak grove, which long since should have been cut down, stands like a gigantic row of thistles which a school-boy has decapitated wantonly. Fir branches and tops strew the roads and paths and hang suspended overhead. As for garden trees, the cherries have been decimated, and shrubs, such as azaleas, heaths, macrocarpa, brooms, and so forth, are broken and levelled to the ground. And, worse still, the damage to the roofs of outbuildings, standing under trees, is deplorable. We have lost three vital weeks in the garden and on the farms and now we must waste at least another week in tidying up. The human race is going through a bad patch and seems unpopular with all the gods at once. One thing amused me during that hellish time—our policy in censoring weather reports. One may refer to it now that communications are pretty well re-established. But during the first days when the weather completely dislocated all our communications and services, we were freely allowed to broadcast the news to the enemy, every hour of the day.

THE GREAT FROST OF 1894–95.—My memory — largely a blank canvas — has the clearest picture of the great frost which began at the end of 1894 and lasted into the spring of 1895. It was just before I went to my private school. We were living in London under the tuition of a governess. Oddly enough, we always began the day with a hand of whist, the cards having been arranged and dealt by us before our governess arrived. She used to stress the remarkable run of ill-luck which attended her. The backs of half the houses in our gardens were a wall of solid ice for weeks on end, the water froze in the jugs in our bedrooms, but we were never without coal and fires blazed everywhere, even in bedrooms, in those days. Our lesson hours were shortened, so that we could take advantage of the ice on the Serpentine. We learned to skate quite well by constant practice. I remember clearly the roped-off enclosure west of the bridge on the south side of the Serpentine. This was reserved for "payers" and in the last weeks was constantly invaded by non-paying "roughs," who, joining hands, charged down upon women and children and outraged polite feelings. Their incursions were never checked. I remember the braziers all over the ice and the stalls of those who sold refreshments and hot dogs. And I remember days when we skated over "silver-thawed" pavements, as to-day we do. And—Oh! heavens—how clearly I remember the piteous condition of frozen beggars and the skiddings of Saturday evening "drunks," common enough in those days, male and female.

"OTHERWISE ENGAGED."—There will be no Courts during the war, and apparently no substitutes. That implies that little attempt will be made by mothers of debutante daughters to arrange dances and sherry parties to launch them. The new entry is largely on war work and those whose homes are in the country are likely to stay there. In more senses than one, the young women who belong to London society will be "otherwise engaged." I should estimate (in consolation) that not one girl in ten ever marries among the young men she meets at London balls, and has not done so since 1914. One good thing which may come out of this war may well be at last the ending of that highly commercialised launching of the *jeunesse dorée*.

THE OLD STAGER

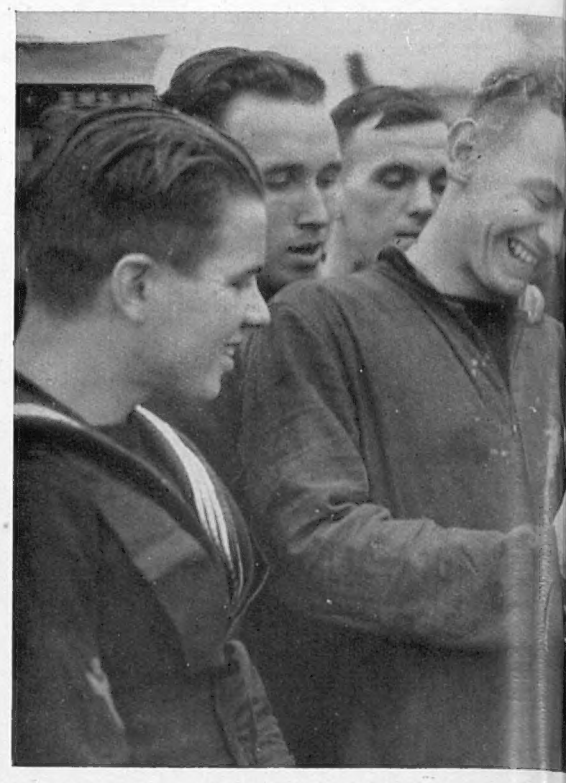
WHO WOULD NOT BE A HERO THESE DAYS? Squadron-Leader Christopher Doran, who did some very good work in connection with the Kiel raid and in combat with Messerschmitts, came in for an unexpected burst of public congratulation. It took place at Princes Theatre at a performance of *Shephard's Pie*. Doran was recognised and had to face the audience from the stage. But he did it in company with pretty Phyllis Robins. "So it was not such an awful experience after all," and it doesn't occur every afternoon

THE MASSIVE BROW OF THE M.O.I. CONFRONTS AN EX-AMBASSADOR The Minister of Information, Sir John Reith, gave a tea-party to French war correspondents at the Ministry of Information prior to the completion of their visit to this country. Sir John Reith is here seen describing to Sir Eric Phipps, late British Ambassador to France, the present situation. The meeting was an M.O.I. affair; it had nothing to do with the press section, over which Sir Walter Monckton holds sway

HOME AGAIN:

HAPPY SCENES WERE ENACTED WHEN B.E.F. LEAVE WAS RENEWED A FEW DAYS AGO

Weather conditions made it possible to renew leave from France. On arrival, mothers and children were waiting on the platform. Everybody admired everybody's baby and a good time was had by all



THE "AJAX" CREW SHOW RELICS OF THE FIGHT WITH THE "GRAF SPEE"

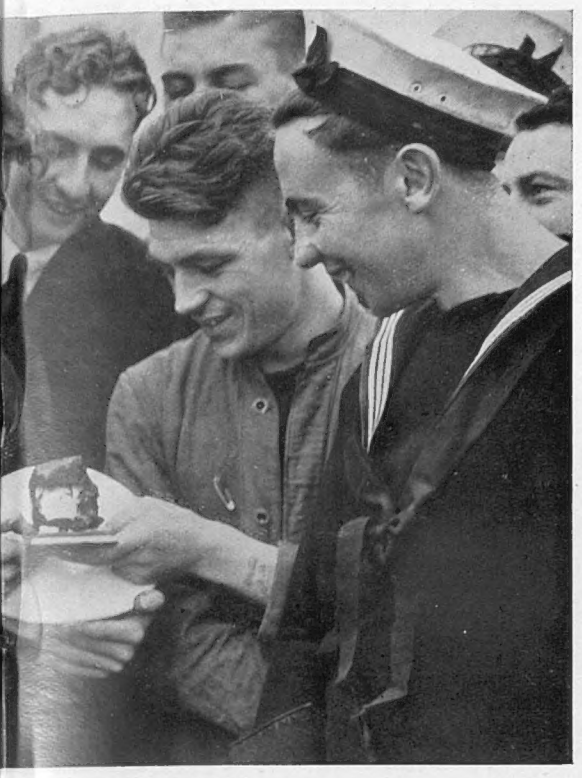
A TYPICAL GROUP WHEN THE STREAM OF RETURNING MEN FROM FRANCE WAS RESUMED. SOME WERE LUCKY TO BE CONVOYED IN THIS HELPFUL FASHION

The men on leave is the subject of an interesting letter from Mr. Bernard Shaw, who realises that the men pouring home to this country and to darkened London must be suitably amused. "During the last war, when we had 2,000,000 men in the field, we had 80,000 of them to entertain every night, with the result that theatre rents rose enormously. House full was the rule." Mr. Shaw refers to the war programmes provided for the troops and desires the presentation and preservation of something better. He pleads for the busy ballet season at Sadler's Wells. "What I want to know is whether these irreplaceably rare and highly skilled artists, providing a most delectable entertainment of the highest class for our 50,000 soldiers on leave every night, are to be sent into the trenches to fill thirty places which could be better filled by thirty unskilled labourers"

THE NEW BATTLE HONOUR FOR THE "AJAX"—IT INDICATES THE FIGHT OFF THE RIVER PLATE WITH THE "GRAF SPEE"

SAVED FROM THE SEA WHEN THE BELGIAN STEAMER "CHARLOTTE" GOT INTO DIFFICULTIES OFF THE NORTH-EAST COAST

The "Ajax" on Leave after Two Years' Service: B.E.F. Leave Resumed: Saved from the Sea



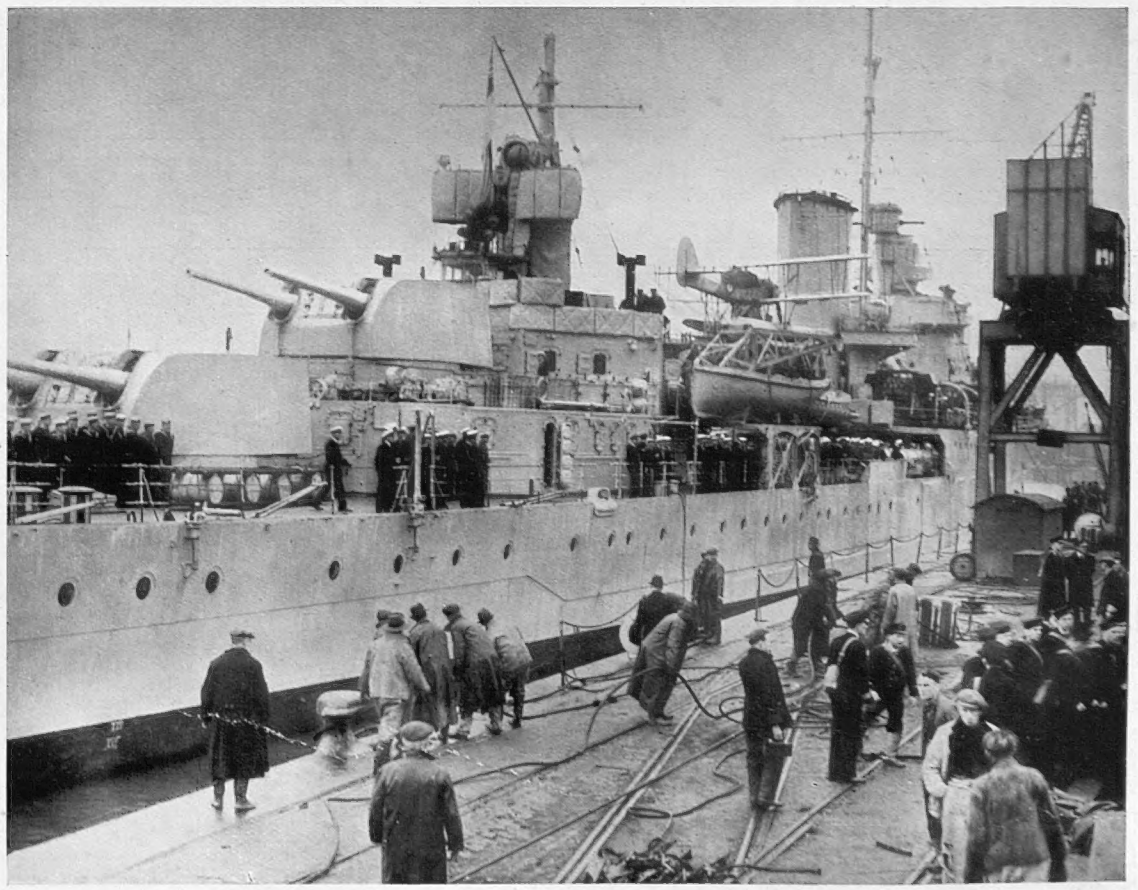
There was great jollification when H.M.S. *Ajax* drew into Plymouth Harbour a few days ago. Some of the men had secured souvenirs of the fight, which they proudly showed

Ships which have borne the proud name of "Ajax" figured in the battles of St. Vincent and Trafalgar. We now see that room should have been left for the new inscription

Two of the crew of a Yorkshire lifeboat were drowned when the vessel went to aid the *Charlotte*, which was in difficulties during a recent storm. Six of the steamer's crew lost their lives. The rescued were given new warm clothing and are here seen at breakfast

CAPTAIN C. H. L. WOODHOUSE, COMMANDER OF H.M.S. "AJAX," BEING GREETED BY THE DEPUTY LORD MAYOR OF PLYMOUTH

Great was the homecoming of Captain Woodhouse's ship when she returned for so well-earned a leave—after two years' service at sea which included the great *Graf Spee* fight



LOOKING QUITE HERSELF IN SPITE OF THE STRESS OF BATTLE AND LONG SERVICE—THE "AJAX" AT PLYMOUTH

The trim lines of the British cruiser to the lay eye revealed little of her recent strenuous days. Her famous 6-in. guns looked equal to any fresh work required of them. She has naturally been the object of admiring interest

VOLUNTEERS FROM FOUR NATIONS

UNITED STATES AND CANADA
PROVIDE VOLUNTEERS

Volunteers from several nations are now gathering in force in Finland, and among them are Canadians and Americans. They go through a period of acclimatisation and endure this period with what equanimity they can

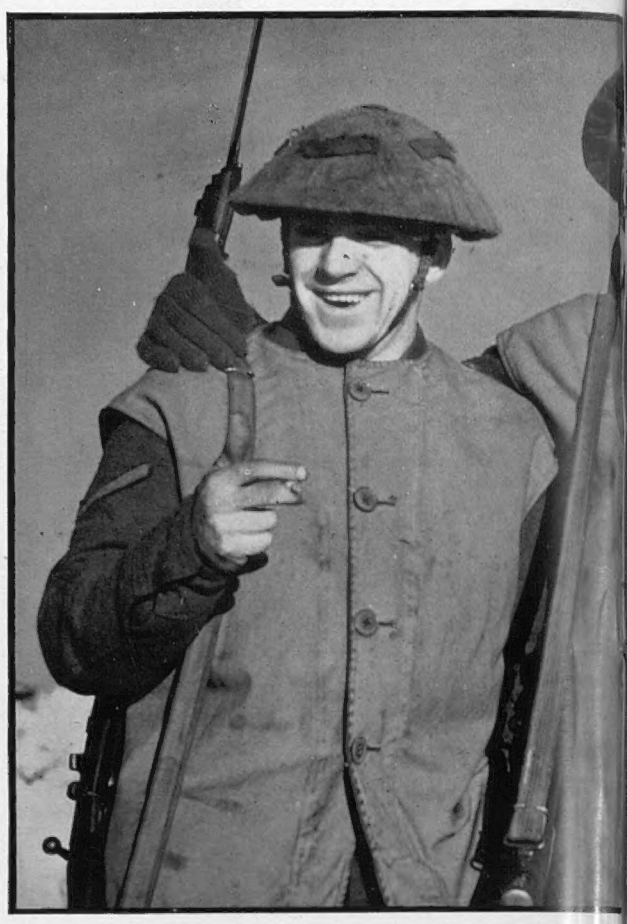
DENMARK
PROVIDES VOLUNTEERS FOR FINLAND

Denmark, too, has contributed a number of volunteers to Finland. They are all skiers and well equipped for the work with thick white coats and caps

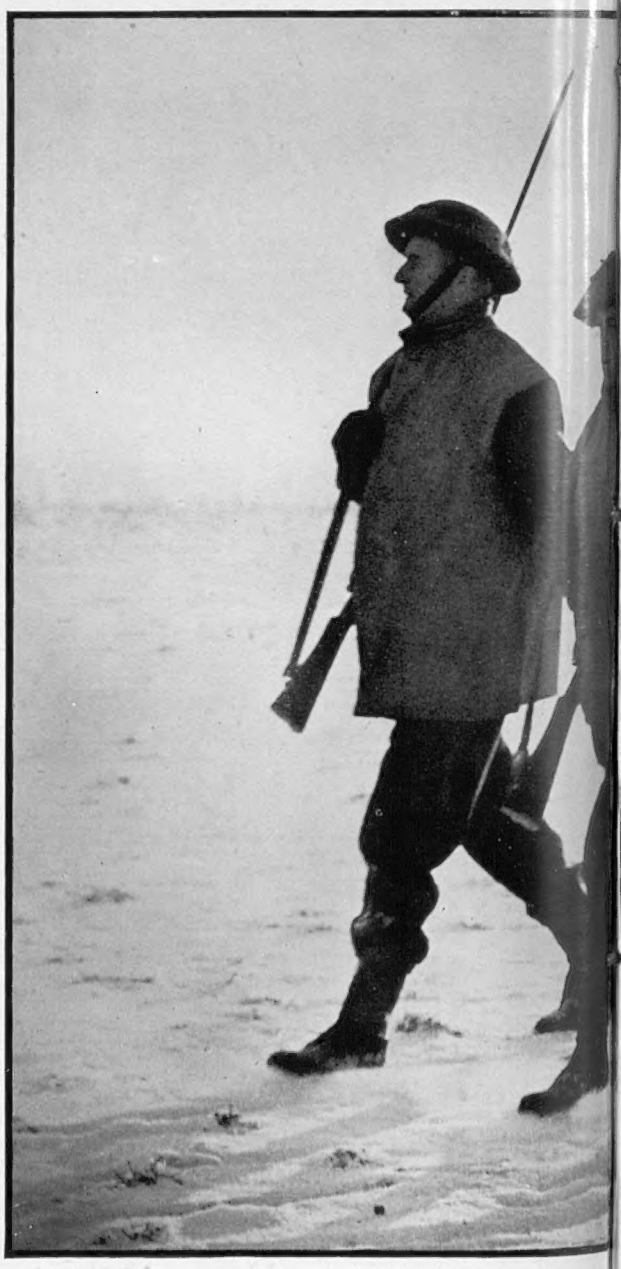
SWEDEN
PROVIDES VOLUNTEERS FOR FINLAND

The next-door neighbour of Finland is feeling its position very strongly and its aid has been forthcoming in many voluntary ways. The Swedes are familiar with the climatic conditions they have to face on the Finnish fronts and should therefore prove useful reinforcements

THEY MIGHT HAVE

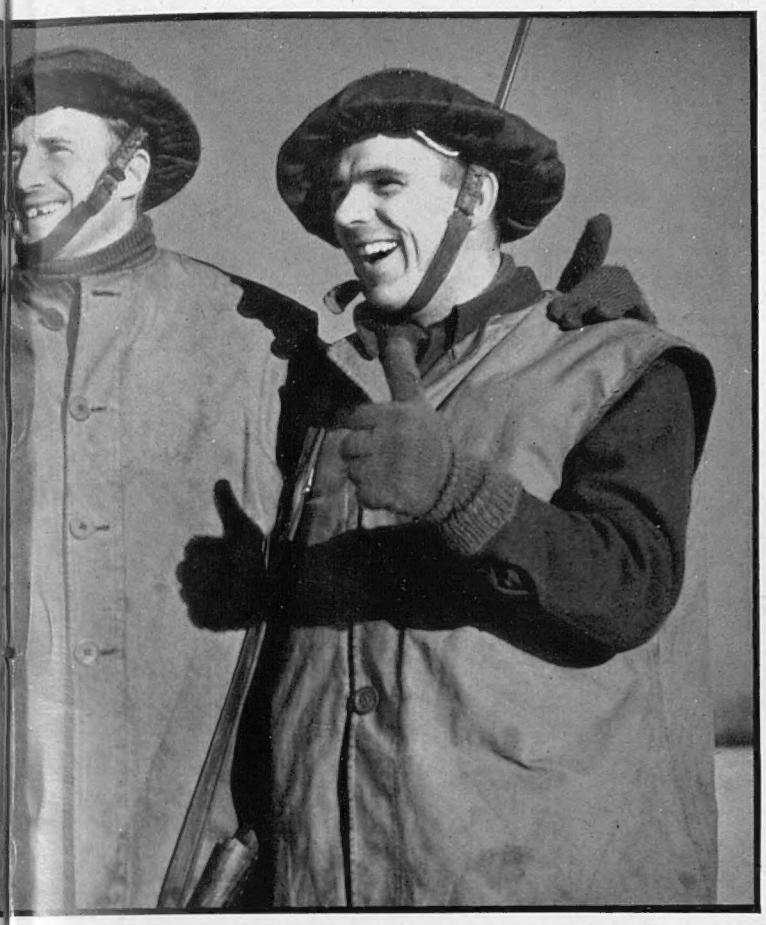


BUFF-JERKINED BRITISH SOLDIERS LOOKING FOR FALSTAFF AND FLUELLEN

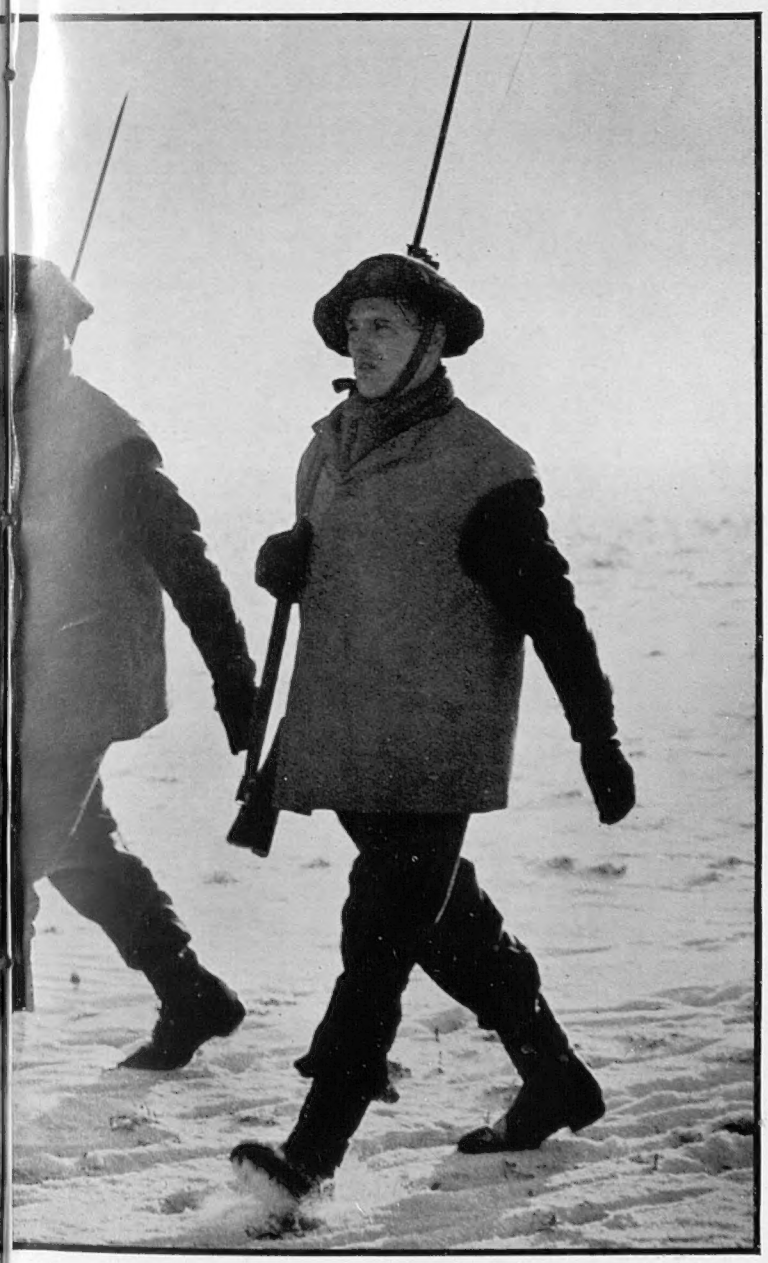


STRIDING IN AMITY OVER THE FIELD OF FRANCE

FOUGHT at AGINCOURT

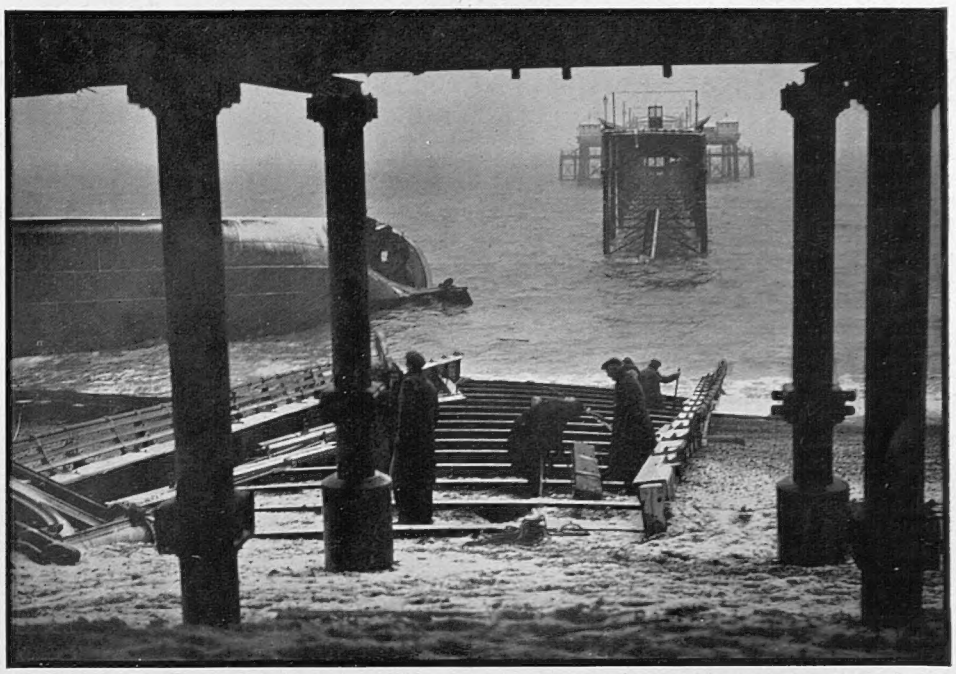


In these excellently made leather (wool-lined) jerkins these men seem to leap out of the depths of time and bring back memories of other and earlier expeditionary forces, which fought on the fields of France



British soldiers to-day wear helmets and jerkins which cannot fail to stir memories. These pictures, as noted above, recall conflicts with our Ally, but as M. Giradoux, the brilliant French author, said recently, "our battles with Britain were always fought as between equals and never with rancour"

RECORDS OF JANUARY WEATHER



JOURNEY'S END: A SMASHING CAREER THROUGH A SOUTH-EAST COAST PIER, AFTER BEING TEMPORARILY SALVED

The *Nora*, a small Dutch coasting vessel, struck a drifting mine off the south-east coast last week, but was saved from sinking by a salvage tug. Then with the rising tide and the wind, the hulk of the *Nora* was lifted clean through a nearby pier, wrecking it and leaving a gap in the pier structure of from 70 to 100 yards in width, and turning the seaward end of the pier into an "island"

A VAGARY OF THE FROST WHICH MAY PUZZLE THE READER

When wires were down in Hampshire the frost played many a strange trick and here one sees, apparently, bars of ice hanging in the air. Really they are suspended on telegraph lines

THESE SNOWDRIFTS UP NORTH WILL LONG BE REMEMBERED

Up in Derbyshire the snow played tricks which were far from pleasant for the local inhabitants and in fact for all the travelling public who sought to go north by the western routes. January will long be remembered by those who experienced its rigours

THE WEATHER'S PART IN MODERN WARFARE

The Recent Climatic Conditions Which Have So Disheartened the Russians and Aided the Finns

(The Strategy of the War—XX)

By
GENERAL
SIR CHARLES HARINGTON,
G.C.B., G.B.E., D.S.O., D.C.L.

WE are now well into February and daily getting to where big things are threatened, but as nothing in this war has yet happened according to expectations, it is quite possible that forecasts may again be wrong. In recent weeks one factor has dominated all others, and that is the weather. It certainly must have made many thousands of Russians wish that they had never been sent on their task of overrunning the Finns. From all accounts the Finns have proved themselves masters in their stopping tactics, and will be heartened by the arrival of help and reinforcements, and especially by the reinforcements of fighting aircraft. According to reports the Russian losses have been very heavy both in lives and material. I can think of nothing more inspiring than the Finns on their skis swarming down on the Russian communications and transport. As I write, fierce fighting is still going on near Lake Ladoga, on the Karelian Isthmus, and in the Petsamo area. The scenes so graphically described by a military observer are amazing. One can only pay a real tribute to the gallant little Finns. As their President has just said, his country is quite prepared for peace on just terms. We await the outcome.

Is it possible that that vast nation of 180,000,000 is going to acknowledge that it cannot defeat a nation of 4,000,000? It is too good to hope for, I fear. It would most certainly end the Russian bogy for ever. This seems the moment for all and sundry to send every form of help to Finland, whatever the cost. If only Russia can be forced to say: "I have had enough of this, I am going home," the way would be clear. Hitler would have shot his bolt, for he would have clearly backed the wrong horse, and so lost prestige in his own country as well as in the world.

One wonders what Stalin and Hitler think of this hold-up in Finland. The latter must be getting impatient as the days go on. He will hate it if anything should interfere with the date on which he has decided to take over England. His last speech does not appear to have gained much applause except from the audience who had no other course open to them. The usual threats and sneers, and his everlasting assertions that we are entirely responsible for this war, are completely played out, and the world is sick of them.

What a contrast to Mr. Chamberlain's dignified speech in which he gave us just simple facts regarding our efforts up to the present and for the future, and his reminder to neutrals that, although they may have been inconvenienced, we have not sunk one neutral ship. They may have resented a reference in a recent speech by Mr. Winston Churchill regarding the attitude of the neutrals, but they cannot get away from the above fact, nor that the number of neutral ships sunk by the Germans is mounting considerably week by week.

With pride we see our naval commanders and masters of merchant ships, who have done gallant acts, received and congratulated by the Admiralty. I wonder what sort of honours and decorations are awarded to a pilot of a German plane, who reports that he has successfully bombed and sunk a defenceless lightship when anchored? It is bad enough to attack fishing smacks, but they may at the time be catching fish for our breakfasts, but to destroy a lightship seems to be the very lowest form of wanton cruelty. Possibly the deliberate low bombing of Finnish hospitals by the Russians is not far removed from the same category.

The details of the atrocities which have been and are being inflicted on the Poles, and which have recently been made known, rank with the above. These things cannot bring much comfort to any of the smaller nations who would assuredly suffer the same fate if they got into the clutches of Germany.

I realise the usefulness of thinking out the requirements for the new world after the war, but we have a long way to go before we are certain that whoever speaks for future Germany can be trusted to see that such brutality can never happen again. M. Daladier is quite clear on this point. France is quite determined to go through to the bitter end.

On the Western Front the situation remains the same, one of watching and waiting with the usual patrols and desultory artillery fire. We have to be devoutly thankful for the small size of our Army casualty list published recently. A good number of the casualties were, I understand, due to accidents. The bad weather and state of the roads both at home and in France have made it difficult for drivers and riders of mechanical vehicles.

MOUNTED FOR ANTI-AIRCRAFT

A Bren gun on its tall stand ready for action. Note the operator's revolver holster which is strapped to his right leg in such a manner that if he be either in an upright or prone position, the revolver can instantly be withdrawn

The Royal Air Force still continue their reconnaissance flights at will over Germany, whilst the Royal Navy and Air Arm continue their relentless watch over all that is dear to us—our very life-blood. We may well be proud and thankful that our ships travel the seven seas with a 500 to 1 chance against disaster.

The arrival of H.M.S. *Ajax* at Plymouth must have been a proud moment both for the officers and men as well as for the onlookers. I only hope that Hitler will see the pictures of the officers and men landing. They show the best tribute one can pay to the spirit of the Royal Navy.

At the time of writing, no official statement as regards the Balkan Conference has been issued. Turkey has laid down her views on the situation very clearly, and Italy is keeping a close eye on events. This conference may have far reaching results.

It is to be hoped that the argument with Japan over twenty-one Germans has been amicably settled. It would be stupid, as Mr. Chamberlain said, to quarrel over such a small matter.

I have pointed out from the start how much we have benefited from the time which has been granted to us for preparation, and it cannot be denied that we must be much better prepared in every way than we were last September. Whilst our Navy during these months has been clearing the seas so splendidly of German shipping and U-boats, our Air Force has refrained from bombing anything except harbours. The Allied troops have wintered behind very strongly-defended lines, presumably to put the onus of starting the frightfulness and bombing of London on to Hitler.

The time will assuredly come when we say to Hitler: "It has suited us to let you have the initiative up to now, and we know that it is not out of love for us that you have not used it. It will now pass to us, and you will take the consequences." I do not mean by this that I visualise an attack on the Siegfried Line; far from it. I saw too much of frontal attacks in the last war to advocate that form of attack. But there are other methods by which we can get the upper hand. We want to end the idea of waiting on the Germans; we want to manœuvre ourselves into the position of being "on top," and once there never relax our grip. It can be done and will be done. Once get a stranglehold on Germany by sea, land, and air, and throttle her import and export trade, and we can then watch Hitler and Hitlerism struggling on the slope.

It certainly looks, as Major-General Sir Ernest Swinton said in his last talk on the wireless, as if our broadcasts are striking home, when anyone who listens to them in Germany is liable to death. There can be only one end to that. The truth will out. General Swinton also raised the question as to why the Russians had been successful in Poland and had failed in Finland. As a cricketer the answer to me is simple. A team always plays better on its home ground. Finland is playing on its home ground. The pitch has been prepared by their own groundsman. He may have prepared, watered or frozen the wicket, but the Russians quite clearly do not understand it. That appears to be their undoing.

It was pleasing to see the favourable reception given in the Press to the first speech as Secretary of State for War given by the Rt. Hon. Oliver Stanley at Newcastle on Saturday last. It was throughout a masterly and soldierlike speech from a man who had himself served with distinction in the last war. He left no one in any doubt of the justness of our cause and our determination to secure a free world. He also made it quite clear that we are fighting for our lives, and that we have a very long way to go. He urged all to give of their best towards rapid production. Whilst he justly drew attention to the man power of Britain and the Forces of our Dominions, he certainly pleased old soldiers amongst his hearers by emphasising the fact that the numbers who have been called up have got to be trained and equipped before they can take their places in the ranks as trained soldiers.

People have been glad to hear that a million or so men have been called up, but it does not end there. It only begins. We had been told weeks ago that there were 1,000,000 men in this country doing intensive training. It was only right that the country should be told that these men have to be trained, and that officers, instructors, and equipment have all to be found and are being found gradually, and that quite rightly the units next for overseas have to have preference. It is much better to be told the situation.

One sees so many retired officers about, both young and active, and with much experience of training, command, and longing to be called up as instructors. One imagines that their services could be usefully employed and no doubt they will be when equipment is forthcoming. One must remember that the doubling of the Territorial Army and conscription came on top of each other and the provision of instructors and the necessary armament and equipment could not possibly be provided in a moment, but it will be in time. The great thing is that the right spirit is there. Not only in the B.E.F., not only in all our services and amongst those engaged on A.A. and searchlight duties in lonely fields, but in the whole nation and its factories, and it is that spirit which will take us through to victory and peace.

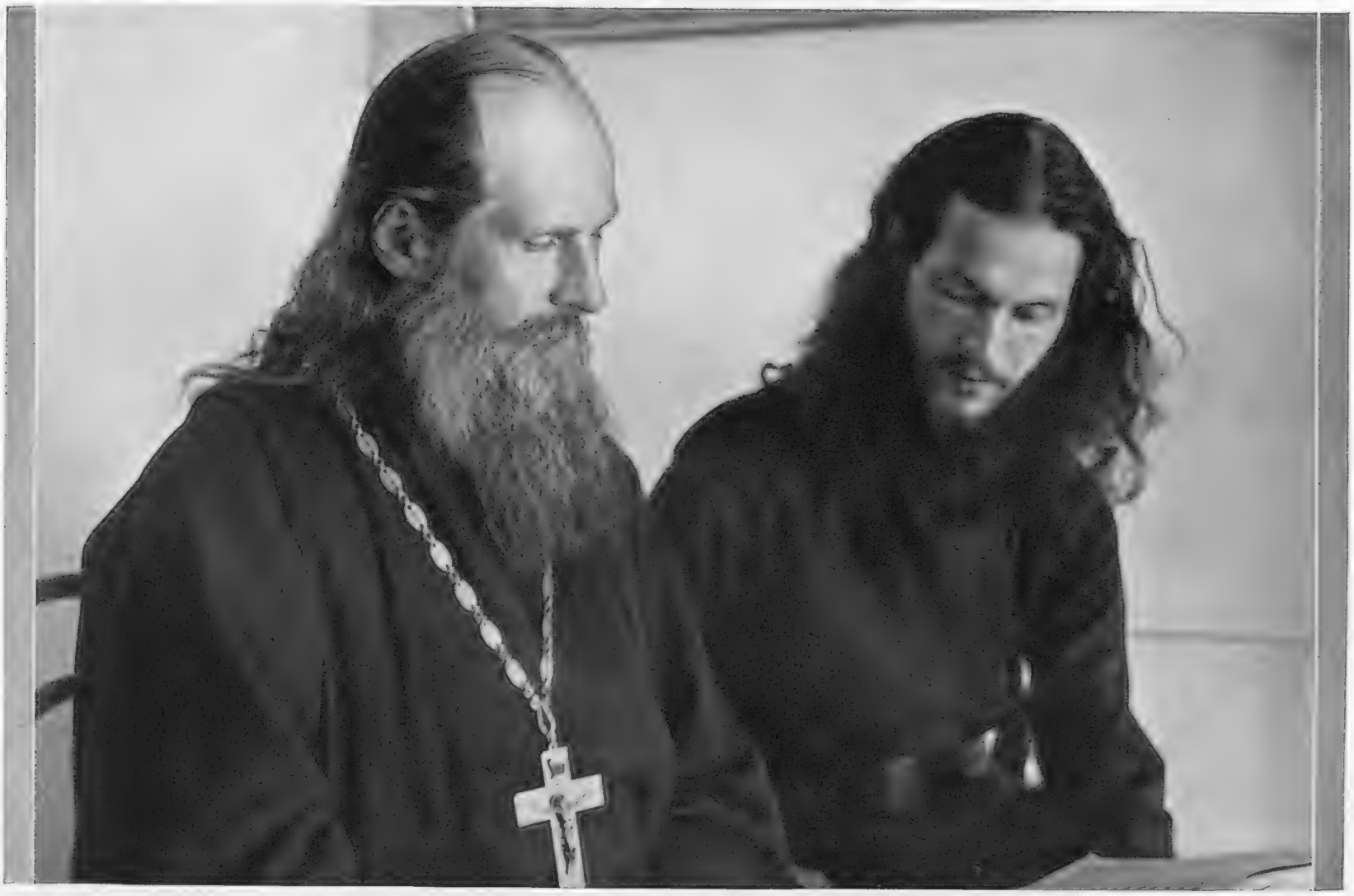
It was a great comfort to all that the crews of the submarines *Starfish* and *Undine* have been saved, and one retains each day a faint hope for the crew of the *Seahorse*.

The recent successes of the R.A.F. in dealing with enemy raids on our coast-line give us great confidence. From all accounts the determination and superior handling must give the Germans much food for thought, as it seems pretty evident that Hitler's policy is to be of the "hit-and-scuttle" nature for the time being. I do not think he can have reckoned on quite such a determined and skilful reception.

I look upon all these things to be driven in like pegs into a long road. The Navy peg is getting driven in deeper gradually. The Air Force peg is going in by degrees. The blockade peg is going in steadily, and the Army peg is made of good stuff. The might of the whole nation and our Allies is ready like a sledge-hammer to knock in those pegs when the occasion arises so that they shall never come up again.

WAR SURGES ROUND VALAMO

THE ISLAND MONASTERY OF LAKE LADOGA



THE IGUMAN, OR PRIOR, OF VALAMO CONSULTS AN ILLUMINATED MISSAL IN HIS PRIVATE ROOM

In the upper, or Finnish, half of Lake Ladoga lies the island of Valamo and on it the famous monastery of Sts. Sergius and Germanus. Founded in 992, it has at various times suffered severely in the Swedish and Russian Wars and now once again war is surging to and fro in its proximity. The Finns allowed the Russian members of the brotherhood existing in 1922 to continue, but no further Russian brethren were to be added

ONE OF THE BROTHERS READS FROM THE BIBLE DURING A MEAL IN THE REFECTORY

The convent is a Russo-Greek one, and the brethren wear the peculiar headdress which denotes their attachment to that faith. The monastic buildings are magnificently situated

THE MONASTERY BELLS CALLING TO EVENSONG AT VALAMO

The bell tower is nearly 300 ft. high, the fifteen bells weighing about 20 tons. Thousands of pilgrims dressed in their colourful best have heard these bells ringing out across the wood. *On left* Numerous workshops are attached to the convent and here, in the one shown, a monk is instructing orphan boys in woodwork

The INCREDIBLE SHODD the RUSSIAN

o o o

In this set of pictures is revealed an astonishing story which demonstrates that numbers and Moscow parades count for little if the manufacture of mechanised units has not been thoroughly carried out

By DONALD COWIE

Drawn by Clatworthy

An ingenious—if sanguinary—new method of fighting the smaller Russian tanks has been devised by Finnish soldiers and is eloquent of their fine enterprising warrior spirit. A pair of them, one armed with a crow-bar, and the other with grenades, hide in roadside trees. The moment a tank has passed they leap out upon it, avoiding its eye-slots as far as possible. One man immediately begins to wrench open one of the scuttles, then the other hurls his grenade inside. (The crudely designed detail of these tanks lends itself to this form of attack.) The driver can only steer for rough ground in the hope of throwing the Finns off; the gunner can do nothing but fire blindly with his revolver through the crevice as it appears. They dare not themselves open the scuttles*

These Russian tanks captured in Finland are light or light-medium models, and crude adaptations from British, French and American types, notably the Vickers T.26. Carden Loyd Mark VI, Renault and Christie

Survey these curious contrivances, and wonder no longer why the Russian has the reputation of being the world's clumsiest mechanic. They are not actually tanks, but armoured vehicles on tracks designed for swift movement over snow, ice and slush, and for similar functions

THOSE who used to prate of Russia's mechanised might should make a careful study of the accompanying pictures. These depict Russian tanks and armoured vehicles that have been disabled and captured by the Finns, and their story has both strategic and political significance. Even military text-books still aver that Russia has one of the largest and most up-to-date tank forces in the world to-day.

Fear of this bogy-man has long dictated the policies of Russia's neighbours, and has actually had its influence on British policy. But the debacle in Finland goes still farther.

Russia employed the tanks you see in these pictures for a characteristic Hitlerian thrust against Finland. It was their object to penetrate swiftly to the heart of enemy territory and paralyse vital points in the defences. Their failure to achieve this object is an important lesson for strategists and politicians alike. It teaches the former that tanks are not infallible; the latter that Russia has once again been over-rated.

It must be added, however, that although Russia adopted the Hitlerian mechanised method in outline, she did not fill in all the details. Insufficient provision was made for support, supply and reinforcement. Therefore the tanks, at the end of their fuel tether, were left helpless on those forest-girt, frozen roads, to be easy prey for the superb Finnish anti-tank defences.

Trees were felled in the path of the invaders, so that their trunks and high stumps provided dangerous obstacles. Cylindrical man-holes were excavated at the sides of the roads, and from these the Finnish soldiers could throw grenades and bottles of petrol directly under the tanks as they passed.

As for the Finnish anti-tank guns, many of Swedish manufacture, they have won the admiration of all foreign military experts. Finally, the Russians made the elementary error of omitting to send co-operating infantry along with the tanks.

As for the machines themselves, they are dealt with in the separate captions below the pictures, but, generally speaking, they are either very crude specimens, or scarcely tanks at all. Based on British, French and American models, such as the Vickers, Renault and Christie, they are travesties of their prototypes, and display all the Russian faults of rough and clumsy workmanship. A common feature, plain to all, is the flimsiness of their tracks. One must, however, draw the reader's attention particularly to the light cars which are evidently meant to function in some such fashion as our "Bren carrier." It is obvious that in most cases the tracks have let them down, but high speed in a Russian vehicle of this type, especially over a difficult terrain, would inevitably end in disaster. Note the pitiful buckling of the "bogie-wheels." Side bars of thin metal have apparently been fixed to ward off collisions with trees. These vehicles would be very lightly armoured. Everything is sacrificed to speed, but the speed itself wears out the engine and bearings and causes early trouble. We should not wonder that already the Finns have captured over 400 of the ungainly monsters, as well as over 500 vehicles.

This humiliation of the Soviet Tank Corps is by no means a final nail in the coffin of highly-mechanised warfare, but reinforces the belief that tanks must have favourable conditions to be effective, and need present no terrors for a really determined and well-equipped adversary.

The latest pictures to be received by "The Sphere" reveal Russian tank, but they do not appear to have been any more flimsier types described here. Numerous photographs show

One of the latest tank pictures to reach "The Sphere" tank on left, which had been endeavouring to draw a the fate of so many of its kind. Other heavy captured

This bad mix-up of two Russian tanks on a forest road reveals that a typically Russian effort has been made to shield the crew from the weather. It is seen on the left hand tank where a kind of tarpaulin tent has been erected over the upper part of the tank. Snow is endeavouring to bury everything beneath its pall. Another type has now made its appearance—an amphibian tank with a stern screw propeller, and presumed to be useful in crossing open-water lakes. It is now in Finnish hands

o o o

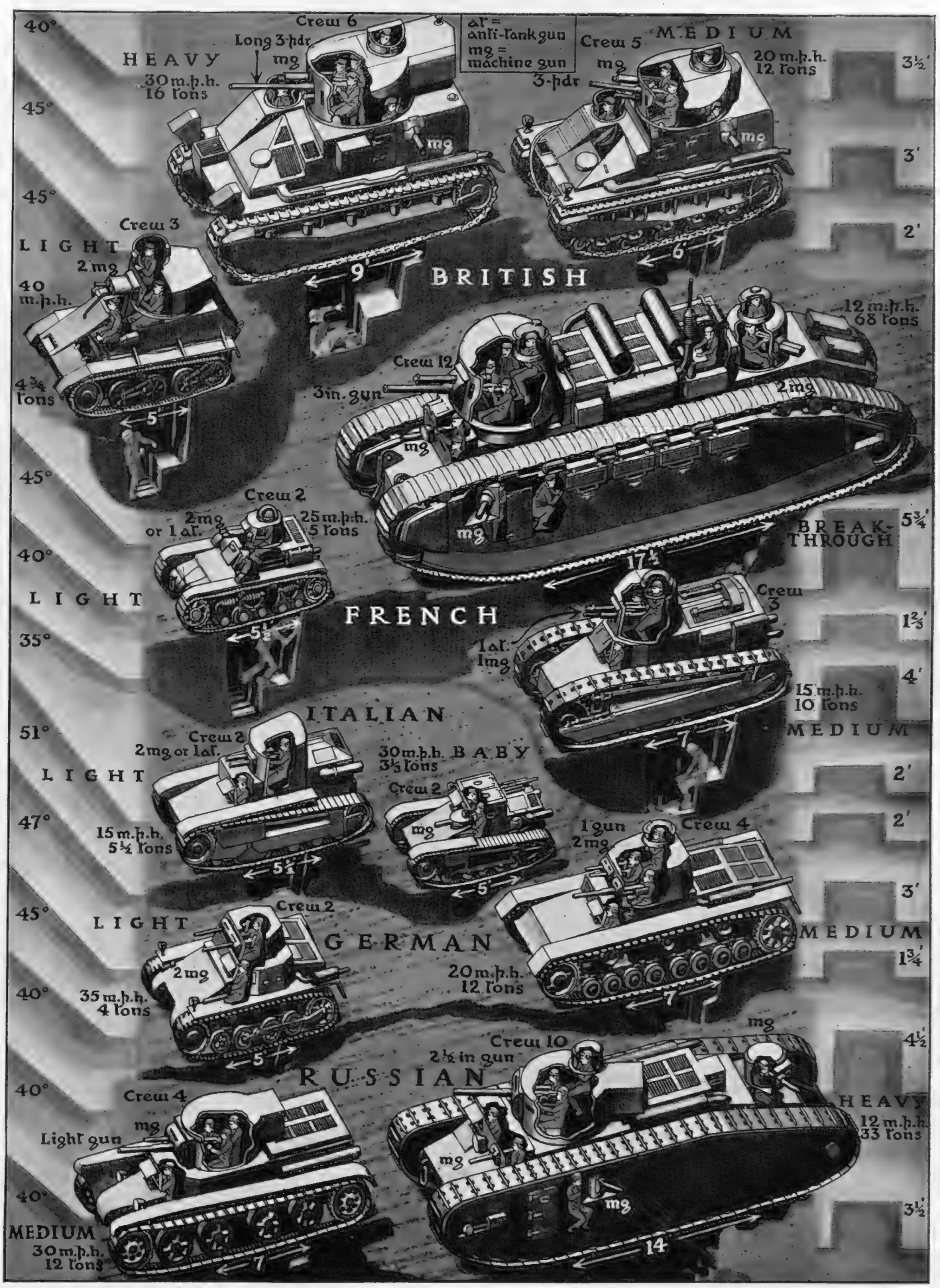
* *Part of sides of the turret have been cut away to reveal the men's position inside.*

In the picture on the *bottom left*, the condition to which these light tanks are reduced is shown in detail. The metal of the side bars has been split and torn in surprising fashion. The smallness of protection conferred on a crew is more than ever evident here

NESS of TANKS

the advent of a heavier type of successful than the lighter and captures of these heavier tanks

shows a stranded captured tank behind it when it met material appears in the distance



Copyright by the artist in the U.S.A.

Drawn by Clatworthy

Left column shows the angle of slope which the tank can climb. Right column shows the height of an abrupt obstacle which can be surmounted

This medley of captured vehicles contains a number of tanks which have all lost their track bands. The forward wheels stick out pathetically in the air. Some of the more primitive types of tank appear to be built on a base wider than the usual practice. The lightly-armoured car seen here is of better manufacture

TYPES OF FIGHTING TANKS USED BY THE EUROPEAN POWERS

Three British, Three French, Two Italian, Two German and Two Russian Tanks are Shown

British tanks, it will be seen, prefer speed to thick armour, whilst the French—rather surprisingly in view of the traditional qualities of our good ally—reverse this. All except the Italian Baby show a revolving gun turret on top, and in every case the driver sits between the tracks. All are drawn to the same scale and the French giant easily dwarfs all others. Beneath each tank is shown the width of trench or other gap which it can span; down the left side the angle of slope which it can climb; and down the right the height of abrupt step which it can surmount

BEHIND CONCRETE WALLS THEY CARRY ON A FABULOUS LIFE, YET FULL OF OFFICIAL MILITARY DETAIL

A French officer dictating instructions in his office within the Maginot Line fortifications

ABOARD S.S. MAGINOT

You cannot get away from the Comparison of the Maginot Line to a Battleship. The Famous Subterranean Fortifications described by

HARRY J. GREENWALL

AN English-speaking French soldier writing me from somewhere out here in France begs me and brother "knights of the adjectives," as he calls us, to abstain from further comparison of the Maginot fortress to a cruiser buried in the ground. Such comparison seems to annoy my correspondent. Based on the eternal truism that there is nothing new under the sun, I will here recall the fact that when I made my initial appearance at the foot of the Khyber Pass I was moved to comparing the fort to a huge battleship in dry dock; my amazement cooled slightly more than much when I learned with sorrow that this naval comparison strikes all who pass that way. The perky little sergeant who inspected my pass gave it as his considered opinion that he was bored to blinking tears because all blinking blighters thought it looked like a battleship, whereas all knew it was nothing but a rosy fort.

Truth compels me to admit that second and other subsequent visits caused the illusion of the battleship to fade quickly enough, because close-ups showed a dull and drab affair of muddy-looking strength, and nothing but. Yet, if this long line of steel called the Maginot Line does not resemble a battleship in action, to what can this "knight of the adjectives" compare it? In fleeting moments I think of a Fleet Street newspaper office in the late afternoon, when the Hoe presses are switched on, and there is a mighty roar and some vibration.

You who have seen photographs and newsreels of the Maginot Line; can you really realise a section of it, any fortress? It is, of course, a world apart, a fabulous world such as might have been created by H. G. Wells when he began to dream, a world inhabited for weeks on end by men who lead the lives of by no means uncomfortable termites. One enters this grim wonderland through a massive door, armoured naturally. Beyond this barrier the visitor is directed to a seat in a miniature railway car, a section of a powerful but toy-like underground train. The train starts smoothly and brings before your amazed eyes the ever shifting sight of metal stairs, and twisting armour-plated tunnels, masses of machinery, ventilators, and all sorts of unfamiliar apparatus. Well, I am sorry, but it does remind me of the complicated insides of a cruiser or a submarine.

On the surface of the line observers scan the surrounding terrain for enemy activity. A willing battalion commander obligingly demonstrates what happens when there is enemy action which merits attention. Immediately an unseen observer telephones a warning, an operator takes down the message, something which gives you the impression of a fire control station in a battleship crossed with the switchboard room in a Fleet Street office. The message goes to a group of men seated at a table. (Mem: gunnery officers or sub-editors?)

The men take notes, consult calculating apparatuses (this bit is like the Exchange room in a big bank when Continental currencies have the jitters). Then someone shouts out a series of figures which are written on a blackboard. This reminds you of Wall Street on a busy day. A telephone operator transmits the blackboard figures to a gun turret, and you are back in the battleship. In the turret everything is in motion, including the powerful turret itself. All electrical, of course. Automatic escalators bring shells within hands' reach. The gun is aimed at its objective. Two minutes later, the exact period elapsed since the observer's warning, the gun is ready to fire, thanks to the swift co-operation of the fortress's 600 men.

The life of these men is almost austere. Rarely do they see the sunlight, the sky or the trees. They live under atmospheric conditions which are sometimes severe and where changes in temperature are sudden. They sleep in bunks—like seamen. Their living rooms, I almost wrote wardrooms, are brightly decorated. There are plenty of games such as draughts and chess and backgammon, called here *jacquet*. Each fortress has its own hospital and modern operating room. The officers have a smart little bar.

I suppose more people have visited a battleship than an editorial office when the presses are in full blast, but fewer have been in a battleship under service conditions. In both the battleship and the newspaper office there is a steady vibration, like the pulse of a giant beating rapidly and audibly. All I can say to my correspondent with the illegible signature is that if the vibration does not recall the battleship to him, his knowledge of fighting ships is less than mine. But on re-reading the letter I find that perhaps it is only the external appearance of the Maginot Line to which he is referring? Well, what can I say to that? Only that in the dusk the line looks like some monstrous sea serpent which is trying to turn itself into a Wellsian submarine.

Let us glance out to starboard and compare what I can see with the contents of a late pre-war publication issued in English in Berlin; a last effort to persuade the British people that the Maginot Line was a threat to peace, and more particularly a menace to Germany! Poor suffering lambs. The article contains the following allegations: "Built underground for the most part, the French fortresses contain guns with an accurate range of fire of 60 km. (about 38 miles), and some of even 120 km. (roughly 75 miles). As it is inconceivable that they should be turned upon French territory, the only target for them is the German side of the frontier. The guns are a constant menace to a large industrial area of the German Reich. Without moving a single soldier or aviator across the frontier, nothing could effectively prevent France from bombarding such German towns as Freiburg, Karlsruhe, Mannheim, Mayence, Stuttgart and many others."

It is not for me to discuss the range of fire of the French guns in the Maginot Line, but all I can say is that I hope the publication, *Germany and You*, from which I have culled the statement, is accurate. I can add, however, that if ever the French guns do fire on the targets the Germans claim they can reach, it will be for reprisal reasons only. Please remember the reasoned statement of Premier Daladier, "We shall not take the initiative, but we shall return blow for blow." On the other hand, German big guns have been in action against the Forbach sector, which is roughly two miles from Saarbrücken and its nine bridges across the Saar River. German artillery, we know, is massed out of sight in the Warndt-Forest; there are other German long range guns on the east bank of the Saar, which have hammered Forbach in the only really big artillery action this war has so far produced. Forbach was evacuated by the civilian population and strongly fortified.

What can I see? Advanced positions, friendly and enemy, are often water-logged, but whenever necessary they are defended by cross machine-gun fire which effectively prevents enemy occupation. Through spy glasses on a clear day I can spot German tanks parked beneath trees near their front line; since bringing up these tanks the Germans have never attempted to make use of them. I wonder how their petrol is holding out?

What of the German artillery? The French gunners have respect for their enemies and do not belittle either the guns or the gunners. Have the Germans any artillery surprises? I do not think so.

Behind the German lines soldiers have been busily employed making farmhouses into pill-boxes, which suggests to both the expert and the layman that maybe the front sections of the Siegfried Line are not as strong as they are cracked up to be, but likely enough cracked up is not the right expression—yet. German soldiers taken prisoner a little time back referred to subterranean aeroplane hangars capable of holding 2,000 planes, but this is likely to be a very exaggerated figure, although the existence of subterranean sheds is an accepted fact. Nevertheless, there are good reasons for stating that so far few German machines have been brought into advance positions.

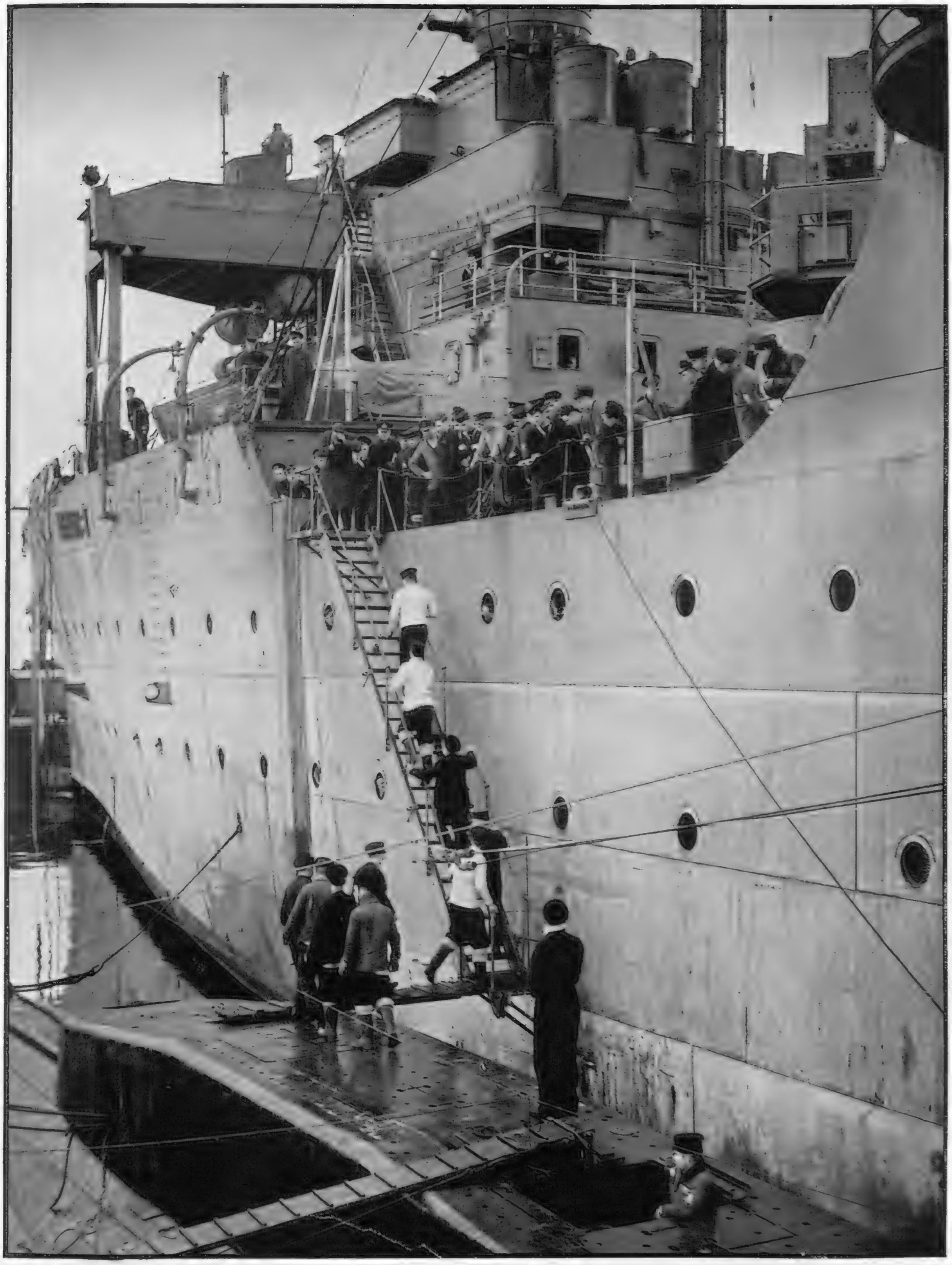
A Paris weekly illustrated has just come into the line. There is a page drawing rather *à la* Bairnsfather showing two French soldiers each sheltering behind a tree in a sparse wood. One soldier calls to his pal: "*Ma parole*! it's us they're firing at!" Nothing I have seen so far gives a better idea of the spirit of the French men at arms. They are not contemptuous, but faintly amused at the very audacity of *les Boches* thinking they can do anything to the Maginot Line. I have just taken a last glimpse of it, anonymous correspondent, and it does really look like a battleship, you know!

THE MEN ON GUARD IN THE MAGINOT LINE ARE WELL FED

A scene in one of the big kitchens equipped with modern cookers

A SUBMARINE DEPOT SHIP

Which Mothers Nine . . .



THE CREW OF A SUBMARINE MOUNT THE GANGWAY AFTER THEIR RETURN FROM THREE WEEKS' PATROL

It is a great moment when, the patrol over, with all its memories of stress of weather and of good and bad luck, the crew go aboard the mother-ship, and are welcomed once again for the rest period, during which their craft is thoroughly overhauled. (See following pages for special description)

A SUBMAR

which has Nine

I Visit a Depot Ship which marines—both Vessels and

By NOEL

AT REST AFTER A LENGTHY PATROL—A SCENE IN THE WARD-ROOM OF THE DEPOT SHIP

To be able to clean down, and relax in armchairs amid pleasant chintz-curtained surroundings is a tremendous relief to the returned personnel of a submarine

I AM writing this, metaphorically speaking, in the dark. You see, I set out on a quest to find out at first hand something about the men of the submarines, and about the life of the men on the submarine depot ships, to which the underwater craft return like a child to its mother for nourishment and comfort. Thanks to admirable efficiency and courtesy from the Admiralty I was given permission. Only a few days later the telephone tinkled beside my bed, and, having checked my identity, a voice gave me my marching orders for that night.

Seemingly endless hours of travelling in trains inordinately late, for which the Admiralty apparently allowed, because it did not upset their schedule, brought me to my destination where, after my papers had been checked by the police, I was escorted to the gallant commander who had received wired advice of my name and object and exact time of arrival. Also I could see what I liked because the article would be censored. Now a journalist cannot spend many hours on a warship without seeing, hearing, or possibly imagining many things which it would not be in the national interest to print. And there was I with credentials which gave me *carte blanche*. So if there is an occasional hiatus in the article I can only say that it must be blamed on the fact that this was one of the most interesting experiences I have had, and interest over-ruled discretion to the point of necessary deletion.

Two of the slim, grey fishes were already moored alongside the mother ship. One was in for engine repairs, the other had returned from convoy work 24 hrs. before. My main interest centred in No. 3 submarine which was awaited back hourly from patrol work; for No. 3 had recently been in the news, and her commander's face had been on the newsreels of the world.

I picked out a speck in the distance, but my landlubber's eyes deceived me, for in truth it was not very far away. It was the minute size of the vessel which had led me astray. In a few minutes she had come silently alongside, the bearded commander in the conning tower, and she was being moored. I felt I wanted to cheer the wanderer's return, but the few members of the ship's crew who casually watched the operations showed no enthusiasm, and I realised that a solo effort was not called for.

YOU OFTEN WEAR A BEARD AS WELL AS A BALACLAVA ON BOARD A SUBMARINE—

—but you may wish to shave it off when you return to the depot ship

The commander came ashore first, in grey flannel slacks, numerous pullovers, but a brand new hat to suit the rank to which he had just been promoted. His eyes were red and heavy with the strain of fifteen days at sea in little more than a shell, with sleep a spasmodic luxury. I felt that the first thing needed was to flop down on the nearest bunk, but there are numerous urgent duties for him to do—charts to be corrected, forms to be filled in, detailed reports to be made out. Gradually the submarine crew filtered on board, having made everything shipshape and ready for a reserve crew. The favourite beard is one rather like that of the sailor on the front of a packet of Player's cigarettes, though not quite so luxuriant on these youthful faces. "Shaving," one of the depot ship officers explained to me, "is a matter of inclination on a submarine. The normal man in civilian life shaves because he feels scruffy if he does not. On a submarine you probably never take off your clothes the whole time and so you naturally feel untidy and the fact that your face feels in keeping does not worry you after the first three days."

I followed the crew below. Although without news for days, none of them went to the N.A.A.F.I. bookstall (gaily decorated with a large coloured picture of naval film star favourite, Ann Sheridan). That could wait. The N.A.A.F.I. canteen attracted one or two. "We sell about equal quantities of cigarettes and chocolate to the crews," I was told, "and it is remarkable how much fruit we sell them. Before they set off again every man seems to want to take aboard his own supply of apples and oranges"—which is a healthy thing to do.

And so they split up, chief petty officers, petty officers, ratings, according to inclination. Some may go straight to their lockers for a change of clothing, after a hot shower. The washing arrangements are excellent, in large tiled rooms, with washbasins, showers and baths, clean, bright and cheerful, dotted plentifully about the ship for every class of man and on every deck.

Some men, with a hopeful look in their eyes, wait to hear through the loud-speaker that mail is being distributed. Throughout the whole ship there are two wireless systems, with loud-speakers everywhere, so that every man, wherever he is, can hear all announcements and orders. The bosun's pipe is still heard, but only over the microphone, and endless time is saved.

The mail office and the censor's office are one. The censor goes through 2,000 letters a week here. On the wall hang mail-bags labelled with the names of the various submarines. Some are full—the submarine is at sea and the mail awaits its return.

It's time for a meal. Let us have a look at the catering arrangements. First of all, there are about fifty messes to be catered for, submarine and depot ship, amounting on the day I was there to 786 meals. I cannot explain in detail exactly how there are fifty messes, but nineteen of them are submarine, and the rest are divided up according to grades and sections up to the officers' mess, of which more later. Each submarine has its own table, which is hoisted up to the roof when the submarine is away on duty, and its own cutlery, crockery, etc., is locked away until its return.

The system of feeding struck me as admirable both in idea and execution. The food goes down by lifts from the kitchens to various distributing centres. There each mess collects its own share of the food where it goes piping hot to electric heaters to be kept in condition. In fact, the meal I watched was served, eaten, and cleared away in twenty minutes; and it was no mean meal even for hungry men. The meal was pea soup, roast mutton, roast potatoes, peas, and mint sauce, followed by really light suet pudding and jam sauce. I tasted the soup, not in the dabbling way of a visiting admiral sipping and murmuring "excellent," but with good hearty appetite.

Washing up was equally simple. Electric machines, with jets of steam, and hot water, whirling arms and drying ovens take away all labour. Upstairs in the kitchens I talked with the absurdly young-looking chief cook. He is proud of his kitchens, which gleam like, and are as

THE SUBMARINE DEPOT SHIP IS FULLY ARMED AGAINST ATTACK TO HERSELF

THE FOUNDRY IS ONE OF THE SURPRISES OF THE DEPOT SHIP

In this department an astonishing number of castings can be rapidly made for a pressing repair to a waiting submarine

INE HOTEL

Regular Guests

Does Everything for the Sub-Crews—which It Mothers

THOMPSON

modern as, those of a luxury hotel. They can turn out between 1,100 and 1,200 meals at a time.

Thence to the bakery, by way of various messes where men who had been on night duty, or who had just come off submarines, were lying, sleeping like logs while colleagues played solo, the most popular game. There is something about a bakery which has always attracted me. I think it's the smell and the cleanness, and certainly this one lived up to expectation. The young giant in charge, in his spotless white, was measuring off the dough for loaves, slicing it lusciously with his big knife and tossing it across to his assistant to knead and shape for the oven. Some 800 pounds of bread a day he turns out, lovely crisp new loaves, apart from rolls for the officers and cakes for the men at week-ends. And at Christmas there were large iced cakes for all from the bakery.

A couple of depot ship gunners carrying two very useful "cartridges"; the gun crews pride themselves on a high state of efficiency

THE FIRST THING TO BE DONE WHEN YOU REACH THE DEPOT SHIP—

—is to see that arrears of correspondence are made up. There are letters to read and to be answered, and there is always the cat—each deck has one—to be petted

Before carrying on with the comforts provided by the depot ship for the submarine crews I must say something about the, to me, less interesting, but none the less vital, side, caring for the submarine. Apart from refuelling, there are nearly always repairs of some sort to be done to submarines when they come in. Whatever the job required it is a practical certainty that the depot ship can manage it in quick time at any hour of day or night.

There is the light repair shop and the tool-makers' shop; the foundry, where they showed me their biggest piece of work to date, a 600-lb. casting; the furnaces giving a heat up to 4,000 degrees; the electric welding shop and the plumbers; the smithy and armour-plating shop, followed by the heavy machine shop. It was at the last-named that I heard, and saw proof, of what must have been a magnificent feat of underwater repair work. It was two cylinders from a submarine which had seized up, two vast affairs, with gudgeon pins and pistons, looking as though it would take a crane to lift them. Yet in the confined engine-room of a submarine they had been removed while below surface, repaired, and replaced not once but twice in twenty-four hours.

The model carpenters' shop—at that moment turning out a table—I took in my stride, as well as the electricians' and ordnance shops, like all the others, spacious, efficient and remarkably silent. The two great torpedo workshops, in which I was able for the first time to inspect the amazingly intricate machinery, I must skip over in order to return to the welfare of the crews.

Submarines turn night into day on many duties. In other words, they can usually surface only during hours of darkness. Meals are cooked an hour before surfacing, because the cooking uses up a considerable amount of air, which means that meals are, roughly, breakfast at 5 p.m., luncheon at 2 a.m., and supper at 5 a.m. before diving again. Naturally the meals are irregular and so again is the temperature. For the most part it is bitterly cold, but when below surface a "fug" gets up, while on the surface there is the direct contrast of the bitter cold.

On the whole the health of the seamen is good, despite these handicaps; occasionally there is 'flu—more on the depot ship than on the submarines, and, of course, minor accidents, so my next call was to the depot ship sick quarters, again large, bright, and airy as well as, happily, sparsely occupied. "Common colds we manage to get rid of usually in thirty-six hours, but 'flu takes a bit longer," said the M.O.

A wireless set in the corner was quietly giving out dance music as I moved on to the operating theatre, which is the most modern aboard any ship, and a model for any hospital. Adjoining is, of all things, a bacteriological department, fully equipped with microscope, slides, etc., and a first-class X-ray department, where I was shown a photograph of a suspected broken finger being developed. In fact, there was no fracture. It must sound as though I am exaggerating, but again the large and bright dental surgery, which looks after every man's teeth, is fitted with every modern appliance, and the men get as first-class attention as if ashore.

All have their own recreation rooms, with a library of all types of books; darts, tubular chairs and tables (coppered against rust), wireless, draughts, a small canteen for soft drinks, and couches on which to make up for lost sleep.

I did not have the chance to meet the Roman Catholic and Church of England padres aboard but I saw the room which is used as a church, with the altar, a simple affair of light panelled wood, curtained off. The body of the "church" is used also as a lecture room, and on a blackboard I noticed questions which had been set for ratings to puzzle over when training for a petty officers' examination. I noted down one question. "If a train leaves Charing Cross at 21.43 hours, and arrives at Chatham at 23.02 hours, a distance of 30 miles, how many yards is it doing to a minute." I can imagine many naval men working out in actual life similar problems on that railway.

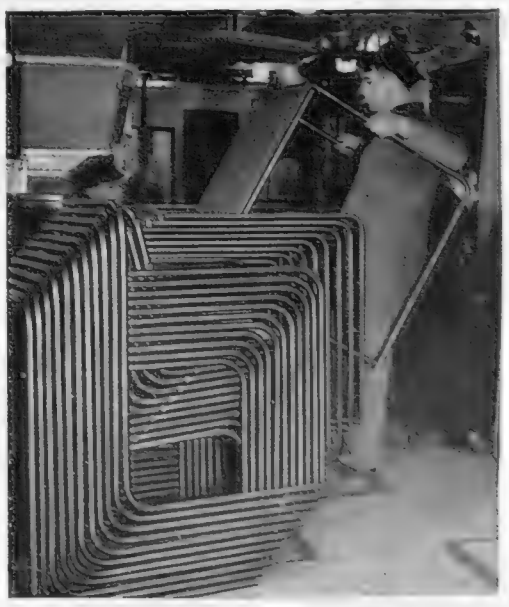
I have said nothing about the clothes issuing-room, which is really a draper's shop where the men can buy anything in men's wear, nor the adjoining spirit-room, carefully kept under lock and key. But I attended the issuing of the rum. Chief P.O.s and P.O.s receive their tot at 11 a.m. and the junior ratings, who must be over twenty years of age, at one bell, or 12.30. And I had to admit that while the word "tot" was not unfamiliar I had never known before exactly what quantity it represented, namely, an eighth of a pint. The seamen have their tot diluted in two parts of water; the rest receive it neat. And most men drink their tot, and I don't blame them, because I managed to queue up for my tot, and enjoyed it.

I have said little about the officers and their quarters. All I can say is that they are in keeping with the whole of the depot ship—of the best. The mess and ward-room are both panelled in a friendly, light wood.

I left the depot ship with regret but delighted to have seen how much is done both for crew and vessel when they return from the depths of the sea after hazardous and uncomfortable work. As I travelled back in the train my companions were men off for seventy-two hours leave. Eagerly they borrowed my papers. Sadly they returned them one by one with a disinterested shrug.

OVERHAULING A TORPEDO BEFORE IT IS PASSED OUT TO ONE OF THE SUBMARINES

The depot ship repair shop ratings see to it that every torpedo is free from defects before being taken on board a submarine



EACH SUBMARINE CREW HAS ITS OWN TUBULAR STEEL TABLES AND CHAIRS

They are stacked away after each visit in this clever space-saving method

The First Lord's Description of the Great Ships and What They Mean

"For consider these ships, so vast in themselves, yet so small, so easily lost to sight on the surface of the waters . . . on them, as we conceived, floated the might, majesty, dominion, and power of the British Empire. All our long history, built up century after century, all our great affairs in every part of the globe, all the means of livelihood and safety of our faithful, industrious, active population depended on them. Open the sea-cocks and let them sink beneath the surface, as another fleet was one day to do in another British harbour far to the north, and in a few minutes—half an hour at the most—the whole outlook of the world would be changed. The British Empire would dissolve like a dream; each isolated community struggling forward by itself; the central power of union broken; mighty provinces, whole empires in themselves, drifting helplessly out of control, and falling a prey to strangers; and Europe, after one sudden convulsion, passing into the iron grip and rule of the Teuton and of all that the Teutonic system meant . . . Guard them well, admirals and captains, hardy tars and tall marines; guard them well, and guide them true."—From "The World Crisis."

"CONSIDER THESE SHIPS SO VAST IN THEMSELVES"

WHEN THE GREAT SHIPS WALLOW IN THE MAIN

New Pictures of that "Far-off Line of Storm-beaten Ships" on which the Comity of the British Empire Depends

ONE OF THE FAR-OFF LINE MEETS A HEAVY SEA

Drawn for "The Sphere" by Montague Dawson

BY NIGHT AND DAY THE GREAT VESSELS OF THE FLEET ARE IN BEING SOMEWHERE NEAR AT HAND

A camera study of one of the giants of the Fleet at sea

"YET SO SMALL, SO EASILY LOST TO SIGHT ON THE SURFACE OF THE WATERS"

British battleships in line ahead under a dirty sky

AS THE SUN DRAWS NEAR TO THE HORIZON, THE CEASELESS PATROL CARRIES ON

It is the constant watch, never ceasing for a moment during the 24 hours, that ensures the safe passage of vessels in the patrolled area

The FAMOUS DOVER

THE DOVER PATROL AREA AND THE HISTORIC BARRAGE OF MINES AND NETS SEEN IN DIAGRAMMATIC FASHION FROM THE ENGLISH SHORE

THE MINE-FIELD CHAIN DOWN THE EAST COAST LEADING TO THE DOVER AREA

This map shows the mine areas in the North Sea both on the westerly and easterly sides. Most of the area of the North Sea is shallow but there is an exceptionally deep channel or valley to the north-east, lapping round the southern end of Norway

UNDER THE WHITE CLIFFS OF ALBION THE PATROL DESTROYERS KEEP WATCH

There is something very
which appeals to the
white cliffs crowned by

PATROL WHICH KEEPS WATCH AND WARD, DAY AND NIGHT, ON THE SHIPPING IN THE NARROW WATERS OF THE CHANNEL

This diagrammatic picture shows the famous barrage as it was established and perfected towards the end of the 1914-18 war. It has been built up from material which has been made public. One of the best accounts of the formation and difficulties of maintaining a barrage which would checkmate German submarines and at the same time beat off surface attack is from the First Lord himself, who deals with the matter in his narrative of the naval conflict. A wide, compact mine area was laid; outside this was a continuous searchlight barrage, one ray meeting the next, as shown here. Further to the north was a boom of nets stretching right across the channel with the exception of the opening for ships at its western end. Patrol vessels kept constant watch on the whole area. The barrage gradually forced submarines to go by the north route to the Atlantic: attempts to pass by the Straits became too dangerous

romantic about the setting of the Dover patrol imagination. On one side of the area are the towering the historic Dover Castle, dating from Roman times

A GUARDED MERCHANTMAN PASSES BY, WITH ONE OF THE PATROL DESTROYERS COMING TOWARDS THE SPECTATOR

To keep the seas safe for British and neutral ships not only the submarine but the deadly mine has to be ceaselessly fought

WATCHING FOR SUBMARINES FROM "MONKEY'S ISLAND" ON AN ARMED MINESWEEPING TRAWLER

These men have a cold job in the winter months and their duffle coats are very necessary to retain warmth

WITH THE DOVER PATROL

THE NAVIGATION OFFICER AND THE FIRST OFFICER AT THEIR POSTS

On right—

A SIGNALLER AT HIS POST ON A CONTROL DESTROYER

A GROUP IN THE STOKERS' MESS DURING A BREAK IN THEIR DUTY

A game of cards is being played by the stokers with very evident enjoyment

THE LEADING TORPEDO OPERATOR STANDING ON HIS TORPEDO TUBES

He is rigged out complete with headphones by which he receives orders from below

AN ECHO OF THE EDWARDIAN AGE

A Book Which Provides the Means of Escape from This Era of Strife

LIFE WORTH LIVING.—Faith sees beyond this present black nightmare the probabilities of a life worth living for men now living. Perhaps it needs the eye (and the years) of youth to visualise a new and happy world in being within a generation after all the mess and muddle and loose ends have been cleared up. Older men can hardly expect to survive the cleaning-up processes so as to enjoy the life worth living which may come at last. It hasn't really been worth living since 1914—for the majority of men and women.

To-day (and indeed yesterday) we cast longing, lingering looks behind to the days of freedom and ease and that sense of security and permanence which we remember loosely as the Edwardian Age, and when we choose our "escape" literature we like to be taken back to those "nineties" of Victorianism and to the Edwardian reign. But let not the elderly delude themselves. They didn't make a very noble thing of the opportunities of those decades when so much could have been done with the blessings of peace, with plenty and a score of thrilling new scientific discoveries, to make a permanent world of happiness for mankind, of fellowship and enlightenment all round.

The young folk are inclined not to envy, but to shudder at, our Edwardian age (and even *our* opinion about the justice of the South African War has undergone a very radical change). None the less, that sense of permanence and security calls to us across the gulf, calls to us in our present purgatory, and affords us our escape in recreation hours and in dreams; and I have chosen (rather late in the day, since it is now in its second or third edition) C. B. Fry's *Life Worth Living* for my "Escape" literature of the week. It has given me a number of happy hours.

Mr. Fry is a scholar and a finished writer, which is not true of most cricket journalists. When a great cricketer who can write, writes about cricket, cricket becomes a saga. Whatever one may say disrespectful about the Edwardian age, one must admit that it covered the great days of cricket; when the newsboys in the Strand cried out their poster captions: "Marvellous Bowling by Richardson," "Another Century by Fry," "Jessop's Hurricane Hitting."

A Saga of Cricket.—In the famous fifth Test match at the Oval in 1902, Jessop gained immortality and melted strong men, who watched his innings, into girlish tears. England was facing defeat, the best batsmen had all failed.

Jessop came in late when hope was forlorn and with hurricane fireworks smashed Australia's bowling in half an hour and knocked up 104 in a way that has never been rivalled. I can't quite forgive Mr. Fry for not remembering this innings stroke by stroke.

Who are the greatest batsmen of all time? Mr. Fry admits the difficulty of decision by hedging himself, as he hedges about which of Australia's cities is the finest. Trumper, W. G., Ranji and Don Bradman must figure in any list. But what of Macartney, Jackson and MacLaren?

And how far behind were Gregory and M. A. Noble? Or Hayward or J. T. Tyldesley? And after all was not Hammond at his best the best of the lot? Did anyone ever bowl faster than Kotze—unless Kortright? or MacDonald? or better than Barnes, unless . . .?

Yes, the saga of cricket in its golden age is escape literature No. 1. But Mr. Fry, who was a fellow undergraduate at Wadham with F. E., Sir John Simon, and Lord Justice Roche, did not devote his life to athletic achievements, quadruple blue though he was. He sets forth his career to stand the test of comparison with theirs and he is content to await the verdict. He gave his best years to training boys for the sea, and saw world politics near and large in India, at Geneva, and in Berlin, where his account of Hitler and the Nazi regime in its early stages makes us wonder why in God's name we are now at war and toying with the fate of our civilisation. Where did the fatal road branch off? Who pointed to the sign-post and turned the column off the straight path? We know where the blame and blood guilt lay in 1938–9. Where did it lie in 1934 or before?

Was life worth living before 1914? And if it were so, were we elderly happier than we deserved to be? What we know is that it was a life which would not and will not satisfy the reasonable aspirations of the rising generation. If youth ever gets back *our* sense of security it must make something better of the opportunities that go with it.

How sad and mad and perhaps bad it was, but ah! how it was sweet!

A Country Parsonage in 1810.—In 1924 Sir Guy Fleetwood Wilson, a great public servant, published a small volume which contained the memories of his famous uncle, fox-hunting squire and gambler, William Wilson of Gumley. I am concerned here with his sidelights on the manner of life of a country parson—for such was his father—at the beginning of the nineteenth century. In some ways (but not all) we are returning to it as a result of petrol rationing and the war.

The parson's establishment consisted of a butler, two footmen and hall boy, coachman, groom and helper in the stables; lady's maid, cook, kitchen maid, scullery maid, two housemaids and three nursemaids—sixteen servants, not including gardeners! And I daresay the sum of their wages did not equal that paid to two so-called helpers to-day. There were four horses and three carriages in the stables but their uses were doubtful. For there was no society within calling distance, no resident squires in the neighbourhood.

At that epoch, country life was not fashionable. All landowners who could afford to live in London did so the year round, with visits to Bath or Brighton or to the Continent if open to them; the great houses were in brown holland, open to tourists by grace of the housekeeper. (*Vide The Torrington Diaries.*) There were no dinner parties for ladies the year round, though hunting men would meet for conviviality at dinner, the hour of which was fixed at 3 p.m., later on by "advanced" hosts deferred as late as five o'clock. These dinners lasted till the small hours.

"Gumley" Wilson joined a cavalry regiment quartered in Dublin. Every night of his life he was compelled as a young cornet to sit down to the mess dinner at five o'clock and had to remain there drinking wine steadily until 1 or 2 a.m.; indeed the doors were kept locked. There was no drinking of spirits and no smoking allowed. They soaked claret and port, and were saved from early death by the fact that they were out hunting most of the daylight hours. Gods, what a life of sottishness and boredom, when one considers the nature of their conversation—horses, women and hunting—for nine hours at a stretch out of every twenty-four! While many now expensive things were cheap, many now cheap were absurdly expensive—among them, journeys and clothes. But inn-charges were moderate enough, and domestic and agricultural labour was paid at starvation rates.

Do You Know?—Readers seem to have been amused by my article on bits of curious and unnecessary knowledge acquired (for a day) from crosswords and radio and general knowledge papers.

Here are some more of them:—

The "baker's dozen." I always assumed that the origin of the term lay in the baker's meticulous honesty, that he supplied thirteen loaves to be certain that he had fulfilled the order for a dozen. But no. The term originally was "the devil's dozen" and the baker, the most unpopular of all tradesmen in old days, was substituted for the devil and so "baker's dozen" is only another form of the old superstition about the unlucky number 13.

"A feather in his cap." This expression apparently has been traced to Hungary in the sixteenth century, where only those who had killed a Turk might sport a feather in their caps.

"A wild goose chase" seems originally to have been a custom of racing horses one behind the other (as in the flight of geese) for unlimited distances, a mere test of endurance.

"Blackguard." This term was originally applied to the drudges or menials in the Royal Household, those who carried the coals: from that use it was extended to cover vicious or idle lads, and was so employed in the seventeenth century. One day its origin will perhaps be traced no farther back than to Nazi Germany in 1933–40.

J. G.

EVE AS A LUMBERJACK

Little has been heard of the Forestry Section of the Land Army but thousands of girls are now busy clearing the forests of brushwood, trimming felled trees and replanting young firs. These former hairdressers, nursemaids, dressmakers, etc., have exchanged their feminine vocations for the stern business of ensuring Britain's timber supply

JANUARY ON THE FARM

The cows watch as the herdsman breaks through the ice which thickly covers their drinking pond. An early morning scene in Essex

SOMEWHERE BEHIND THE LINES IN FRANCE AN INFANTRY OBSERVER EXERCISES HIS "CHIENS ESTAFETTES"

These dogs are taught to act as dispatch riders and very clever some of them become. Extraordinary tales are told of the manner in which they hide and take cover while running under fire. They are taught to slip through barbed-wire entanglements

A MILITARY WAGGON PASSING ALONG A ROAD BEHIND THE FRENCH LINES—ONE SIDE OF THE ROAD IS SCREENED TO SOME TEN FEET IN HEIGHT

In this case, the screen is made of wire, to which are affixed short tufts from branches of fir

SCENES BEHIND THE LINES with the FRENCH ARMY

LONG STRETCHES OF ROADWAY ARE NOW VEILED FROM PRYING EYES EXCEPT THOSE OVERHEAD IN THE AIR

The French forces have been constructing these screens of netting and leaves, allowing of the secret movement of troops. This method of hiding movements was practised in the last war and is being further developed to-day

FRENCH TELEGRAPHIST CORPS AT WORK IN A FAIRY-LIKE SETTING

The work of linking up the terrain behind the Western Line has been steadily progressing in all weathers

CONSTRUCTING A HIGH ROAD SCREEN SOMEWHERE IN FRANCE

In some cases the natural hedge is reinforced with wire netting and greenery

Of Regal and Feminine Interest

FASHIONS TO LURE THE OTHER SIDE OF THE ATLANTIC

This frou-frou frock entitled "Rosy Rapture" is going to America, where occasions for its use still persist. It is a Norman Hartnell creation. A large number of the evening dresses are of ground length and moulded to the figure

TAKING A BALLOT AT THE R.A. The public have been asked to choose the ten pictures they most like at Burlington House. The very varied character of the exhibition has suggested this idea

THE W.M.T.C. ARE TO GIVE ACTIVE ASSISTANCE TO THE B.E.F. IN FRANCE

Mrs. G. M. Cook (second from left), the commandant of the Women's Mechanised Transport Corps, inspects equipment

THE ROYAL PARTY AT HIS MAJESTY'S THEATRE LAST WEEK

The King and Queen and the Duke and Duchess of Gloucester last week witnessed a performance of *Funny Side Up*

THE QUEEN VISITS THE DEPOT FOR KNITTED GARMENTS FOR THE ROYAL NAVY IN HALKIN STREET, WESTMINSTER

The Queen inspected sea stockings which were sent to the depot from Buckingham Palace

MANCHESTER WOMEN ARE KEEN FENCERS

Members of the Manchester University Women's Fencing Club at practice in their new physical training quarters in Burlington Street, Manchester

THE DEVELOPMENT OF AERIAL ARMAMENT

The Gradual Evolution of the Modern War-plane's Accoutrement

The War in the Air, described by CHARLES G. GREY

(Founder of *The Aeroplane*)

SO many pictures have appeared in THE SPHERE lately of aeroplanes with guns and bombs sticking out in odd directions that readers will, I feel sure, like to know something about modern armament in aeroplanes of all sorts and how it originated. One could not, even if one would, give away any of the secrets of modern armament, because nobody could describe the mechanism of a machine-gun in words. And anyhow the Germans by this time probably have samples of our latest types in general service at the moment—whatever we may have still more deadly coming along. Readers will be interested also to know something of the history of armament in aeroplanes, for ancient history shows that there were people in the Services twenty-five years ago who were looking as far ahead as anybody is to-day.

Before the outbreak of war in 1914 a young naval lieutenant named Clark-Hall, who retired a year or two ago as Air Marshal Sir Robert Clark-Hall, and is now probably back in the service again doing something very important, used to sit perched precariously in the nose of a Short float-plane with a pusher airscrew, pooping off at intervals a two-pounder gun, something much bigger than the air cannon of which one reads so much in the papers these days. Why it did not blow the whole machine to pieces nobody knew. Rumour said that every time it fired the machine stood still in the air because the kick of the gun was stronger than the thrust of the propeller.

Also in those days another young naval lieutenant named Hyde-Thompson, who was killed after the last war in an accident, had taken out, along with Captain Sueter, R.N., of the Naval Air Department (now Rear-Admiral Sir Murray Sueter, M.P.), a patent for dropping torpedoes from an aeroplane with floats, and experiments in this work have been made on Southampton Water.

Also, just before war was declared in 1914, the Vickers people at Brooklands had produced a pusher monoplane which carried a machine-gun in front, and was familiarly known as the Vickers "gun-bus." People had also tried firing machine-guns from the nose of Henry Farman biplanes.

The first machine-gun to be fired from an aeroplane in this country was a Lewis fired by Mr. Marius Manton, sitting in a bucket seat fixed among the undercarriage struts of a box-kite biplane piloted by Mr. Claude Grahame-White, at Bisley in 1912. Also, Mr. Grahame-White at Hendon, at about that time, dropped a 100-lb. weight from one of his box-kites, to see how an aeroplane would be affected by dropping a bomb.

And yet when the Royal Flying Corps went to war none of their aeroplanes was armed. The first German aeroplane to be brought down by a British pilot was frightened down by Captain Vesey Holt, who was killed only a few years ago in an accident when he was an air vice-marshal. He was flying a single-seat monoplane and he carried only a revolver.

The first German aeroplane actually to be shot down was brought down by Lieutenant Lanoe Hawker, who later got a V.C. for gallant action in the air, and was killed in an air duel a year or two later by the famous German "circus" leader, Baron von Richtofen. He used a rifle.

In those early days bombs were generally carried in the cockpit of an aeroplane and handed over the side. Sometimes they were hung in racks, like pipe-racks, fixed outside the machine, and were held in place by pins. They were released by pulling a piece of string attached to the pin.

After the first raid on England by a solitary German aeroplane on Christmas Day, 1914, Zeppelin raids developed and people used to go up looking for Zeppelins in pusher biplanes in which the passenger in front carried a rifle across his knees, hoping for the best. And in France the observers in B.E.2c tractor biplanes often carried rifles, although their only field of fire was outwards between the upper plane and the airscrew, or backwards over the pilot's head. Then there was imminent danger of shooting away a stay-wire or strut.

Some people tried firing through the blades of a tractor screw by fitting steel deflector-plates to the blades at a radius corresponding to the position of the gun. But the bullets hitting the plates jarred the motor-mechanism badly.

Attempts were made to fit a machine-gun on the plane to shoot over the airscrew. One machine carried a gunner in a kind of canoe on the upper plane. Another had a gunner on each wing—a very modern American idea. Machine-guns were fitted to single-seat scouts so that the pilot could fire upwards although he could not fire forwards.

For these jobs the Lewis gun was preferred to the Vickers because the round tray of cartridges of the Lewis was a handier thing to handle in a stream of air than was the flexible belt of the Vickers gun. But the fixed front guns were always Vickers, because the cartridge-belts could be stowed inside the fuselage.

During 1914 Anthony Fokker, who died a month or two ago as an American citizen, was in Germany building rather comic aeroplanes. He struck the idea of an interrupter-gear which would allow a machine-gun to fire through the blades of a tractor airscrew, stopping the firing as each blade went past the muzzle of the gun and discharging the gun in the gaps between. As airscrews even in those days ran at something over 1,000 revolutions a minute, two blades made 2,000 passages a minute past the gun. And as the gun fired at somewhere about 300 shots a minute in those days, the synchronising gear was a pretty piece of design.

At the same time Anthony Fokker copied the French Morane monoplane, and towards the end of 1915 and early in 1916 the Fokker monoplane, with a gun firing through the airscrew, became a scourge to the practically unarmed British artillery observation machines. But about the same time the Sopwith Aviation Company had designed a biplane in which the pilot sat in front and the observer sat behind with a gun. Mr. Kauper, a young Australian engineer who was with the Sopwith Company, designed an interrupter-gear at least as good as the Fokker gear, and at about the same time Mr. Constantinesco, a Rumanian engineer, also invented a good interrupter-gear. The Vickers people produced another version, and a Russian named Dibovsky designed another. So by the end of 1916 we were doing well.

While this was going on Mr. Scarff, a warrant officer in the Royal Navy attached to the Royal Naval Air Service, designed for the back seat of the Sopwith two-seat fighter a horizontal ring, inside which the gunner stood with a machine-gun mounted so that he could swing it round a full circle and elevate or depress it to an extent limited only by the structure of the aeroplane getting in the way.

The Royal Aircraft Factory at Farnborough also designed a gun-mounting for back-seat gunners. It was an elaborate and terribly ingenious affair, and was commonly known in the R.F.C. as the Jabberwock, with due respect to the late Lewis Carroll and *Alice Through the Looking Glass*. It did not last long, and the Scarff ring had that game to itself until a few years before the present war, when the power-driven turret took its place.

Apart from these machines, all the great two-seater tractor biplanes of the last war, the D.H.4 and the D.H.9 and most famous of all, the Bristol fighter, had the Scarff ring.

Apart from that, in 1915–16 much good work was done by two tiny single-seat pusher biplanes, the F.E.8 turned out by the Royal Aircraft Factory, and the D.H.2 designed by Captain de Havilland. They carried one Lewis gun, pointing forward, mounted on a simple swivel. I rather wonder why something of the sort has not been revived in the light of modern knowledge. The later F.E.2B and F.E.2D, two-seat pusher biplanes with big engines, had a machine-gunner in front.

To-day interrupter gears are out of fashion, except in the Gloster Gladiator biplanes. Our Hawker Hurricanes and Supermarine Spitfires carry eight machine-guns embedded in the wings and firing outside the radius of the airscrew—mostly Brownings. The much-discussed Bren does not seem popular in the air. That does away with a lot of complication and the possibility of shooting one's own airscrew off. And if one of the eight guns happens to jam there is plenty more fire-power left.

When one considers that each gun fires twice or three times as fast as the guns of the last war, without any interrupter to slow the rate of fire still more, and that there are eight of them, one sees that a burst of fire from a modern fighter is much more like putting a saw across an enemy machine than like any kind of gun effect. The aft gunner, instead of the old twin machine-guns on a Scarff ring which had got as far as the gun-pit in the extreme tail of the big Handley-Page bombers of 1918, now sits in a turret which is swung round by hydraulic power and in the bigger machines mounts four machine-guns, which is equal to the fire power of the German Messerschmitt fighters.

AN AERIAL GUNNER IN HIS TURRET

Situated midway along the fuselage this gunner of an Oxford bomber can protect his craft from attack directed from almost any angle. The machine-gun operated is a Lewis

Some four or five years ago the air cannon idea was revived. During 1917–1918 the French Hispano-Suiza aero-motor firm had produced a gun which fired through the camshaft which also carried the airscrew.

The Italian three-motor Savoia-Marchetti bomber carries two of these guns, one firing forward over the middle airscrew and one firing backward over the tail, both in a kind of hump like a camel's, on the top of the fuselage. The twin-motor Messerschmitt apparently carries two of these cannons firing forward.

Ordinary machine-guns fire a solid bullet of a diameter of ·303 in. The German bullet is, I believe, ·302 in. The ordinary cannon fires a small shell of 23 mm. diameter—reckoning 25 mm. to the inch, that means about 1 in. diameter so far as the non-technical eye can judge. And naturally a shell of that small size is tricky to make and a trifle unreliable, in that it may or may not burst on impact. But the range of these small cannon is so much greater than that of a machine-gun that the pilot of a machine with a cannon can afford to sit out of the range of the defensive machine guns of big bombers and pot away at his leisure until he hits something. A fighter end-on is a very small target.

So far the latest development in cannon is an American gun of 37 mm. bore, which is as near as no matter an inch and a half, which is approximately the size of the quick-firer with which Lieutenant Clark-Hall experimented twenty-five years ago. The trouble with these very big guns is the appalling kick of the recoil, which needs heavy mechanism to take it up and consequently more weight has to be built into the aeroplane.

"PORTRAITS OF WOMEN" EXHIBITION AT THE WILDENSTEIN GALLERY, NEW BOND STREET: The visitor to this enterprising gallery will not find any Reynolds, Romneys or Lawrences. He will see the efforts of the men of to-day who have taken the same subject as a mode of expression and great indeed is the difference in the product of the old and the new studios. Something has happened since last September and it is not so easy to acquiesce in the aims of the moderns. But pay the gallery a visit and see whether you feel this change

A DOUBLE UPWARD ROLL was worn by this Imperial Roman lady of the early second century. This head is in marble

THERE IS NOTHING VERY NEW in the turban of to-day. This creature of Roman Egypt wore one of a lacy fabric

DOGE ALVISE I. MOCENIGO, marble bust by Alessandro Vittoria, Venetian. A masterly example of 16th-century work

THE STRIKING HEAD OF KING DAVID from the doorway of St. Anne, Cathedral of Notre Dame, Paris

The Metropolitan Museum of Art in New York has gathered together a fascinating exhibition of heads in sculpture. The examples range over a period from ancient Egypt to the present time. Altogether in the exhibition there are about seventy-five heads life size or greater, and some fifty-odd smaller pieces. The majority of those from Hellenistic Greece and Rome and from post-medieval Europe are individualised heads, portraiture having been an important expression of these civilisations. The other heads in the exhibition—the Egyptian, the Chinese, the Romanesque, and the Gothic—were made in eras when there was less interest in the exact reproduction of a man's features. As the exhibition is restricted to heads on display at the present time in the various departments of the Museum it therefore makes no attempt to present a complete survey of heads in the history of sculpture. Nevertheless the richness and variety of the examples shown may surprise even those who know the collections most intimately.

ART NOTES OF THE WEEK

The World of Books—By Vernon Fane

ROMANCES OF ROUNDHEADS AND ROYALISTS

Two Absorbing Novels of England's Civil War

ENGLAND'S Civil War is dealt with in two of this week's novels. Miss Phyllis Bentley's sober and full account of the Yorkshire campaigns under Sir Thomas Fairfax and General Cromwell and Miss Helen Ashton's biographical novel of Henry Vaughan, who fought as a soldier-surgeon in the King's forces up and down the Welsh border and further afield.

TAKE COURAGE (Gollancz. 9s. 6d.) takes the fortunes of a prosperous but simple Yorkshire family and follows them through the war and through the war's aftermath, when the community of Bradford cloth weavers lived in their pillaged houses and tried to reconstruct a life with the bare stones and barer fields that were left to them. Penninah Clarkson tells the story, as an old woman looking back over her life, over the battles and murders and looting she has seen, and the emotions of love and hatred and heartbreak, and everything but fear, that she has known.

Penninah, like her husband, comes from a God-fearing Yorkshire family of wool weavers and all her reasoned sympathies are for the cause for which General Cromwell and Fairfax, with Penninah's husband constantly at his side, are fighting. But her childhood friend, and later her lover, is a young Royalist, and it is to him and to the child she bears him that the outwardly reserved young woman owes her deepest allegiance.

It is worth observing at this point that in the portrait of Francis, Miss Bentley has used the only truly conventional gambit in the whole book. He is everything that the Royalist officers of romance have always been; handsome, gay, foolhardy in danger, cynical, splendid in dress and inconstant in love. He is cut to a recognised pattern, but that cannot be said of any of the author's other characters, who are good Yorkshire types, perhaps, but are cut to no fictional measure.

Miss Bentley, for her story, has pieced together the true tales of many of the sieges and "leaguers" of Civil War times and her folk live with an authentic dourness and stolid courage. There are no heroics or flourishes about this book, but a great deal that is true and moving and, in a quiet way, impressive.

THE SWAN OF USK (Collins. 9s.) is less a novel than a biography, in which Miss Helen Ashton has, with great felicity, drawn a picture of a seventeenth-century Welshman of good though not ennobled family, who was a doctor, a mystic and a poet, and whose lovely poem "The Retreat" was the forerunner of Wordsworth's "Intimations of Immortality."

There was not a great deal of difference between the circumstances of Henry Vaughan, at the beginning of the Civil War, and the Roundhead hero of Miss Bentley's novel. The fact and the fiction give the same impression of self-respecting and self-sufficient country people, with strong loyalties and strong religious convictions, who go into battle with equal certainty that they are fighting for the only true principle.

Henry and his twin brother Tom, who in no wise resembled him, were just old enough to go to the wars for King Charles and fought throughout them, in Henry's case learning a great deal of rough and ready surgery, and a great deal about the spirit of men who will fight a hopeless battle as staunchly as a well-matched duel. After the wars the brothers returned to their home near the Welsh border, and there Henry was at length nursed back to health, though his frail body still retained the germs of a recurring fever to his life's end.

His writing had been little regarded by his family, except by his mother who in her last illness found his lines, the lines of a simple, childlike song, a very great solace to her.

"My soul, there is a country
Far beyond the stars,
Where stands a winged sentry
All skilful in the wars. . ."

Nevertheless Henry Vaughan found in his writing his greatest spiritual happiness and not his domestic joys or sorrows might touch him as nearly as his adventures in his secret search after God. He remained, through two happy marriages and a full domestic life, a mystic and a contemplative spirit, and although his neighbours knew him at the end only as an old doctor of great simplicity and kindliness, posterity was to come to know him as a true and lovable poet.

As a document dedicated to progress THE STORY OF THE WINGED S (Robert Hale. 12s. 6d.) is magnificent. It is the autobiography of Igor I. Sikorsky, designer of the American Clippers. Born in 1889 in Kiev in Imperial Russia, it was the dream of his boyhood to build a flying machine, and before he was twenty he managed to build his first machine, S. 1, which once, but only once, in a particularly strong gust of wind, accomplished a two-foot leap into the air. He was delighted.

On June 3, 1910, he was ready for the test of his second home-made plane, S. 2, and the whole of his life is summed up in one quotation: "I gave the signal and the plane was released. . . . I gradually started to move the stick back. A moment later I was in the air. . . . Having never before been in the air, even as a passenger, I had to learn quickly."

"I had never before been in the air," and that in a machine he had built from his own imagination. Later with his giant flying-boats of the S. 42 class circling the globe (3,000 miles range, 8,500 lb. of payload), he reflected on the intuition that had guided his early experiments. Even on S. 1 he had put tail-fin combination which twenty years later was to be proved by science to be the best. What quality, he wondered, was it that was vouchsafed to pioneers?

It is a fascinating story; starting in a back garden, climbing into the presence of the Czar, as head designer of all the Russias, and then down to the pavements of New York as an almost penniless immigrant. Then hampered by lack of money, held up by the loyalty of his friends, his climb through misfortune and small encouragements to his present paramount position where he can look forward with confidence to the 100-passenger machine, liquid hydrogen fuel and immense technological advances. My only regret is that such courage as his, such inspired ability should have contributed, directly or indirectly, to the menace which hovers over the world to-day.

There is nothing in the least credible about Miss Barbara Cartland's THE BLACK PANTHER (Rich and Cowan. 7s. 6d.) and her many readers would possibly be quite dismayed if there were. Yet here is an author who can tell a story well enough to send the reader on from chapter to chapter as eagerly as hounds on a scent (even if the scent were only Chanel No. 5) and if not to convince, at least to satisfy by her generously romantic ending.

Perhaps to win a bet, perhaps in a successful writer's ordinary high spirits, Miss Cartland has christened her tall, fair Junoesque heroine Lady Gwendoline, but after that departs from the Charles Garvice tradition by causing her to fall in love with a person of her own social standing.

This is a shock which readers might resent if the story were to continue in anything like a conventional mould, but Miss Cartland has another surprise up her elegant sleeve, and we find that this English girl, still in her teens, is possessed by the soul of a Eurasian dancer who was killed at the same moment as this blonde baby was born. The fact that the house of death and the house of birth were in the same street naturally made it easier for the soul to find its way into a suitably distinguished body.

Well, there it all is, with its proper complement of earls and dressmakers and footmen and polo players and I suppose it is as commendable a way as any of escaping from the realities of butter rationing and frostbite.

Mr. Alan Ivimey's ROBERT OF LONDON (Hutchinson. 8s. 6d.) is a good piece of reportage, and in it he covers every aspect of Metropolitan police work with one grave exception. He has chapters on the history of the police, on how the policeman lives, on river police, women police, scientific police, traffic police and special police, and all these chapters are extremely informative and easy to read, but there is nevertheless one peculiar thing about this book.

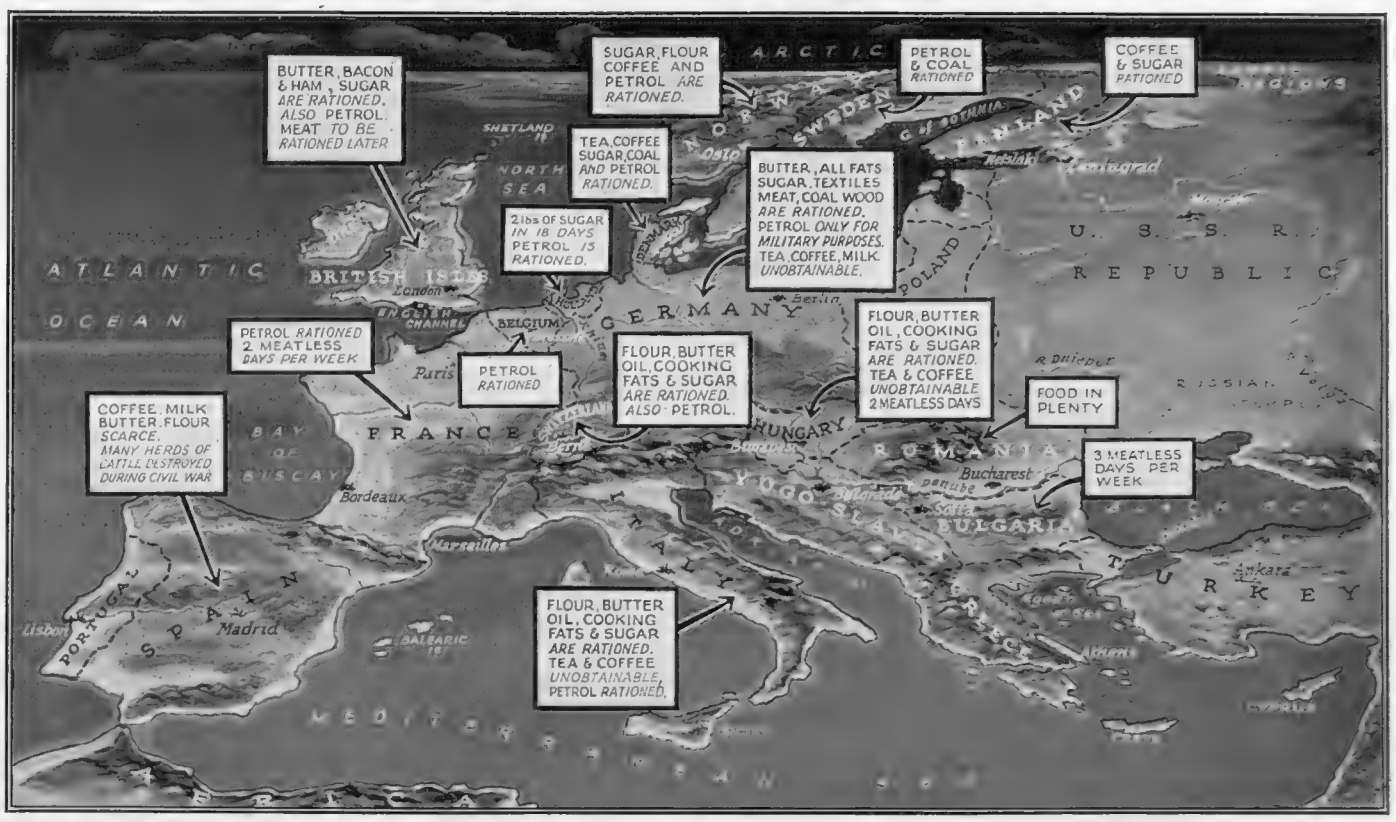
Robert of London is like the story of a film studio told from the point of view of a carpenter who is only interested in putting bits of wood skilfully together to make a solid structure, and is uninterested either in the effect of what he is building, or in the millions who will see it. Mr. Ivimey, except in his history of the Force, pays scant attention to its function as a unit of society. I do not suggest that the police should be "glamourised"; too much of that has been done already and he is wise to avoid it; but behind that *cliché*—"You can sleep safely in your beds"—lies the theory of the police force in being, and the most important of all police activities, crime prevention.

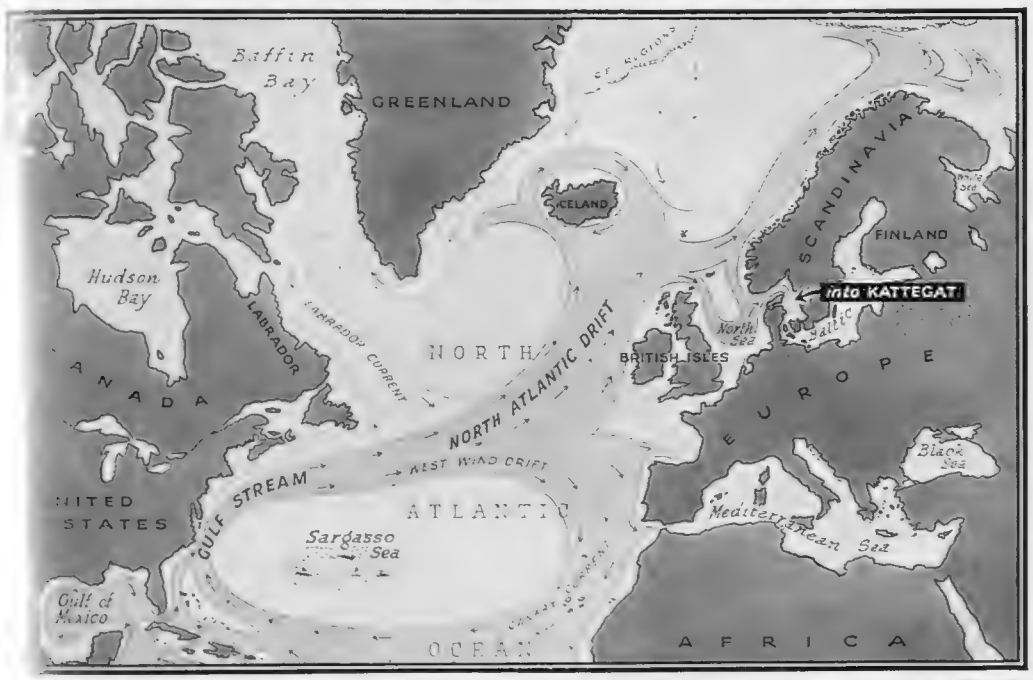
None of these things does the author cover. As a result the book finds itself neatly placed halfway between Case's *Criminal Investigation* (a text-book on the subject) and a Boy's Wonder Book of the Police. Most people who are interested either in the police or criminology are very actively interested, so that I wonder for whom Mr. Ivimey wrote this very readable book.

NEWS IN DIAGRAMS

Food Shortage and Rationing in Europe

Food rationing has become a recognised necessity in wartime for the actual belligerents owing to the requirement for war production. But it is not only the countries actually at war who suffer from restriction, the neutral countries are also restricted and unable to obtain their usual supplies. Transport difficulties are great, partly through the illegal activities of the U-boats and the dangers of the mines, and partly through the general slowing up due to waiting for convoys and examination for contraband. Petrol has been the most generally rationed article, but all countries are feeling the pinch somewhere. The neutral countries have been obliged to spend large sums of money on their defences (see notes below).





On left—**THE GULF STREAM:** It is well known that the Gulf Stream (or North Atlantic Drift) sweeps up against these islands, but its subsequent course is not so well known. A curious feature is the loop after it reaches Scotland. This pendant to the main stream curves round over the great submarine valley off the Norwegian coast and reaches an area noted for great storms, as shown on map on the Dover Patrol Section in this issue. It also encircles Iceland

Below—**"CAROL'S DYKE":** Here is a map which has been specially drawn to show the position of "Carol's Dyke," the new defensive ditch built for military purposes on the north-west and north-east frontiers of Rumania. The main idea of this dyke is to link existing rivers and lakes so as to form a barrier which would check a massed rush by mechanised columns. The work has been carried out by Rumanian engineers, who plotted out a line from the River Maros on the west, where the Yugoslav and Hungarian frontiers meet, along the Hungarian frontier to the point at which the Carpathians (6,000 ft.) began to form a naturally fortified frontier. The easterly part of the line follows the River Dniester, making a double protection as far as the Black Sea. It took little over a year to excavate and having no spectacular works, did not attract the attention which a concrete line would have done

GERMANY began rationing last September and it at once covered a large range—bread, flour, meat, jam, sugar, fats and cheese. Fish, potatoes, vegetables, and fruit are not yet rationed, but are not always available. Pure milk is also on the ration list, but skimmed milk can be obtained without coupons. But even more trying to the housewife is the soap card, which strictly limits the consumption of soap. Dreadful suggestions have been put forward as useful substitutes for the most necessary of all domestic articles. Clothing also is now on the ration list, coupons being required to buy even small articles like handkerchiefs and ties.

AUSTRIA bears the same burden of food shortage as Germany. Only skimmed milk is obtainable and a form of margarine declared to be more like vaseline. Ration cards for clothes, issued in December, have caused much discontent.

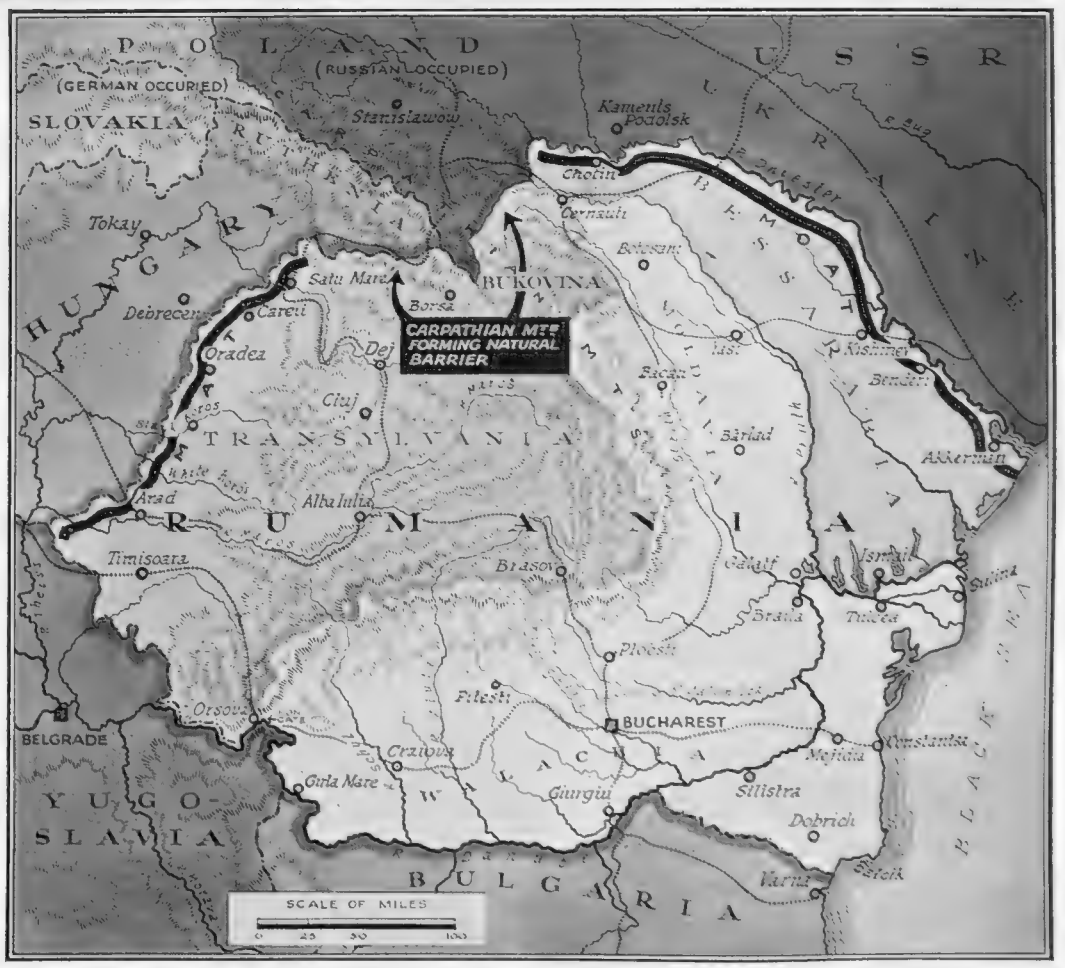
SPAIN is suffering from a general shortage in all commodities, largely as the result of the civil war. There were no reserve stocks, and General Franco has been faced with the difficulty of getting food and work for all the people. The great need is for milk, sugar, cotton and coal.

SWEDEN has been well supplied with food but is now faced with a lack of fuel due to transport difficulties of coal from Great Britain, and to delay in delivery from Germany. Domestic fuel, in the most severe winter for over forty years, is to be drastically reduced.

HOLLAND. Living appears to be fairly normal, and petrol is only restricted for pleasure rides on Sundays.

SWITZERLAND has ration books for petrol, but otherwise is obtaining goods, food and raw material via Genoa.

BALKAN COUNTRIES seem well supplied with adequate food. Hungary, at least, will never starve, having vast supplies of wheat and other cereals.



OUT WITH THE PROOF AND

Near a Sloppy Beach, where They

JUST ABOUT TO FIRE A SHOT: A MONSTER TESTING GUN

It is mounted on a big travelling carrier which at this point is on a turntable. Length of barrel allows every ounce of power to be obtained from the explosion of the charge

RECOVERING A BIG SHELL FROM THE WET LEVEL BEACH

Hundreds of shells of varying size are fired daily at the experimental station

A WIRE SCREEN AT THE BUTTS IS CONNECTED UP WITH CHRONOGRAPHS

This aerial grid is connected up with the chronographs in the neighbouring station, which register the power of the discharge

GALLOPING OVER THE FLAT BEACH TO GATHER UP THE SHELLS WHICH HAVE JUST BEEN FIRED

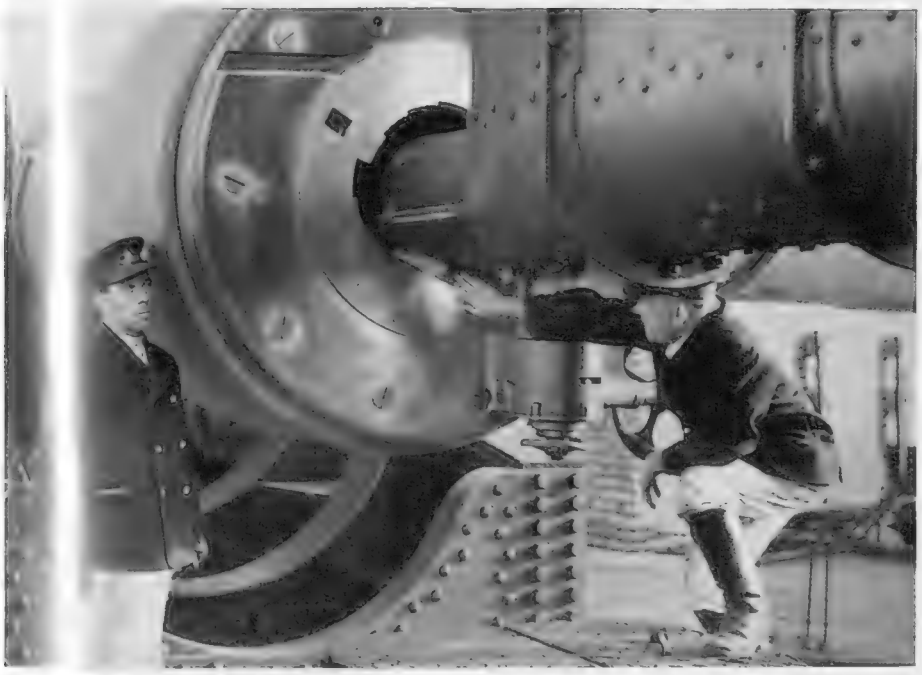
This stirring vision on the wet sea shore shows that the horse still has his uses

EXPERIMENTAL DEPARTMENT

Test Guns, Shell, and Cordite

ANOTHER VIEW OF A BIG TESTING GUN, READY FOR WORK—IT USES A CORDITE CHARGE OF THREE HUNDREDWEIGHT

Before the gun is fired you retire about fifty yards to the cover of a wall



A SHELL WEIGHING TWO-THIRDS OF A TON IS RAMMED IN

There is always a something which may occur—that is accepted as all in the day's work. *On right*—Sighting a big gun on the butts near the sea. There are sixty or seventy Royal Artillerymen at work at the butts and they stand this arduous labour very well

THEY FIRE ABOUT 300 ROUNDS OF VARYING SIZE PER DAY FROM 15-IN. NAVAL SHELLS TO THE SMALLER SHELLS FOR QUICK-FIRERS

The big guns fire at a square opening some 200 yards away. The cordite has to be kept warm, so is usually carried in covers up to the breech

THE GREAT WHITE WAY

The kerbstones have entirely disappeared beneath masses of snow on this arterial road near London. A picture taken during last month's exceptional cold spell

TRAINING TO BE ENGINEERS

Girl students working lathes at the Paddington Technical Institute. These women will be able to give some very valuable assistance to Britain's war industries when fully trained

FOUR-LANGUAGE SIGN-POST

A notice marking the Arctic Circle where it sweeps across Finland on the road to the inlet of Petsamo, the scene of the first Russian attack on that country

THE PETROL WORLD

EARLY STARTING IN THE COLD

Unfriendly Engines which Refuse to Fire

By A. PERCY BRADLEY, M.I.A.E., A.M.I.Mech.E.

(Clerk of the Course, Brooklands)

MOTORISTS who re-licensed their cars at the beginning of the year have been experiencing all the troubles and tribulations of wintry weather, such as one imagines could only descend on Finland. With Arctic temperatures reigning, many people, I am afraid, never got their cars even to start, and those that did felt much warmer than their engines after their exertions. The newspapers have been telling us that these cold cycles recur every forty years, which is comforting news. My own car was far from being friendly in the early morning and so I purposely ill-treated it by leaving it out in the open every night, my object being to let the steep gradient of my drive turn the engine over and so assist in the starting-up operations.

This was quite successful, although at the end of the hill the engine still refused to start up until the starter was engaged just once. I came to the conclusion that the car driving the engine freed the internal parts of the latter so that when the starter was engaged it was able to spin the engine round fairly rapidly. The obvious deduction from this experience is that I am using too thick an oil and so to-day, whilst I am writing these notes, I am having a thinner grade of lubricant put into the engine.

I do not think that leaving a car out in the open at night does any damage to it, provided that it is clean, and I would have continued leaving it out except that one night during the hours of darkness branches of oak trees snapped off under the weight of ice and snow, and one fell just behind the car and another in front. Had either of them landed on the car it would definitely have been badly damaged, and so back in the garage it has gone and my starting troubles have recommenced.

Due to the fact that there are so few cars using the roads, many of our main highways are just as difficult to negotiate when snow has fallen as the country lanes. I suppose the various road authorities are short of staff owing to the war, because my experience shows me that they are very slow indeed at spreading grit or sand on the surfaces to help us motorists on our way.

MUCH attention is being given to the problem of alternative fuels or gas for use on cars. I think a number of motorists have already fitted gas bags on their roofs or are carrying them on a trailer behind. However, unless a car thus equipped is used in a town the difficulty of replenishment of gas makes the scheme quite impractical, for the mileage that can be covered on a normal supply that can be carried is comparatively small. There is much to be said for installing some kind of producer-gas plant but the cost of the equipment places it outside the reach of the majority of car owners in these hard times.

The present conditions which make it so difficult to obtain petrol make one wish that the old steam car which was such a howling success in the early days of motoring had been developed and perpetuated. In the days of the steam car it more or less ruled the roost, in fact it was so fast that drivers of petrol-driven vehicles would not compete against it on level terms in races and hill-climbs. To this day we have proof of this state of affairs, for in every race card issued by the Brooklands Automobile Racing Club appear the words "For internal combustion engines only."

True, the steam car could not be started first thing in the mornings as quickly or as easily as its petrol-driven competitor. Neither could it be driven for as long a distance, as a stop had to be made to pick up water at fairly frequent intervals, but I have no doubt that if the steam vehicle had been allowed to develop and carry on, its range would have been increased and improvements in design would have allowed it to be quickly ready for use, probably in half a minute from cold.

Undoubtedly it was our women-folk who killed the road-steamer. The present lady motorists would, I am sure, not object to sit in a car fitted with a boiler, but their mothers resented being covered in steam when the safety valve of the boiler did its job. To-day, if steam cars were available, they would be worth their weight in gold.

THE other day I received two interesting items of information from the Competitions Department of the Royal Automobile Club. The first was the confirmation of Mr. John Cobb's world land speed record, and the final figures are actually higher than were first published. Driving his Railton Special, he covered a kilometre at a speed of 369·7 m.p.h.

Of all the holders of this important record Cobb, I think, has been the most unlucky. Last year when he took the same car out to the salt beds at Utah he only held the record for a couple of days as his speed was beaten by Captain G. E. T. Eyston. This year when he had the field to himself and was successful war broke out, with the result that very little of the honour and glory which should be his has been bestowed upon him because more important matters of the world have taken place.

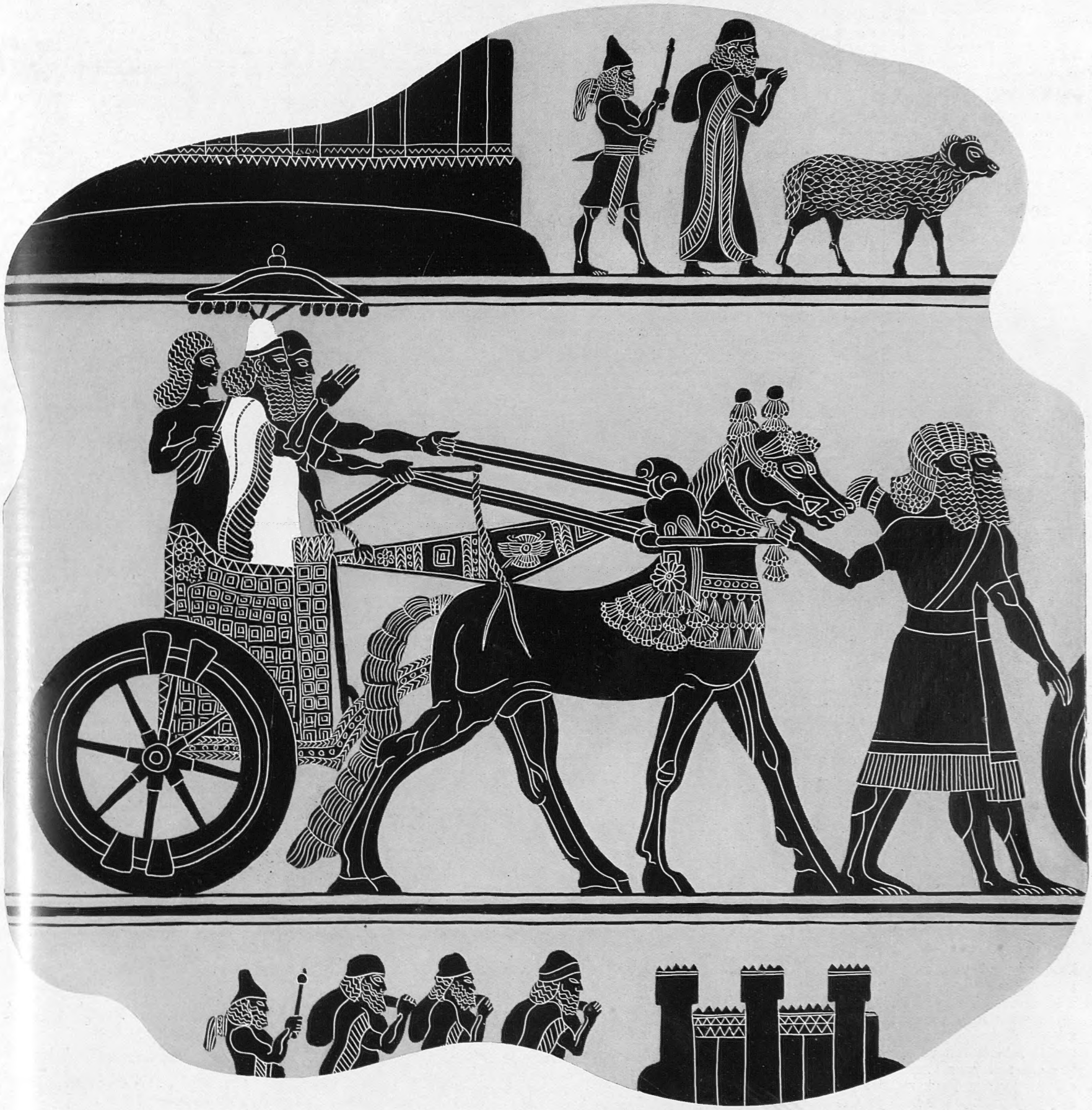
The second news item was an intimation that the International Calendar of Sporting Events has been drawn up and approved by the International Body sitting in Paris. It came as rather a surprise because we, in this country, are apt to imagine that all motor racing is dead until peace reigns once more. However, the list of events which has been approved numbers sixteen, of which twelve will take place in Italy, the remaining four having venues in America, Greece, Spain and Rumania. Although all these fixtures are termed international I doubt very much if they will be found to deserve that description as obviously they will attract no entries from this country, France or Germany.

IN spite of the war, Ford Overseas Delivery and "Home Leave" car-purchasing plans for owners returning on leave or leaving Britain to take up posts abroad will continue to operate. The overseas delivery plan has special value at the present time to members of H.M. Forces posted to overseas stations and to Government officials required to change the country of their residence at short notice. The overseas delivery plan is operated through Ford dealers throughout Great Britain, or at the Ford showrooms in Regent Street, London, the trade-in value of the owner's existing car being accepted as a deposit against the overseas purchase retail price of the new Ford car selected.

Delivery is then arranged in the country required by the purchaser, and the balance of the price is paid when the car is collected. Insurance and licensing in the country to which the car is consigned will also be arranged. Such an arrangement has obvious advantages, as it eliminates the innumerable difficulties involved in shipping a car abroad, particularly in present circumstances, and ensures that a new car, suited to local conditions, will await the owner upon his arrival. However, if an owner particularly wishes to ship his car overseas with him, the Ford plan will take care of all details and complete shipment to port of destination.

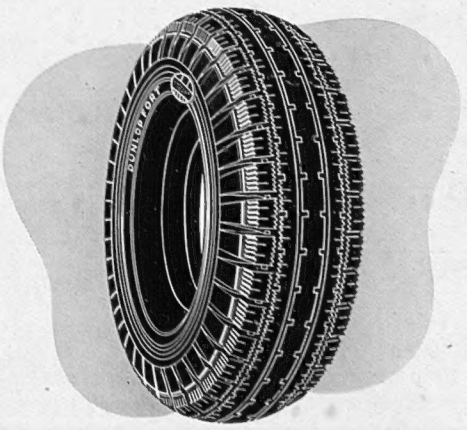
THE SHAFTESBURY HOMES AND "ARETHUSA" TRAINING SHIP

JANUARY 21 marks the forty-seventh Anniversary of the passing of Mr. William Williams, Founder of The Shaftesbury Homes and *Arethusa* Training Ship. Mr. Williams' earth work was going into the shadows where weeping, parting and want abounded, and lifting lives into the glorious sunshine of God's Love, and this tradition is still carried on by the Society, and over 34,540 lives have been lifted, so different to what their lot would have been if left to the condition from which they came. Funds are needed more than ever to keep this work going. Please send a gift if you can to the headquarters of the Society at 164, Shaftesbury Avenue, London, W.C.2, from which address they will be gratefully acknowledged.



The evolution of the wheel belongs to an unrecorded age—so remote that it seems almost within memory that the Assyrian, chariot-driven, "came down like a wolf on the fold." Yet thousands of years were still to pass before there was evolved that indispensable adjunct of fast and safe modern travel—the DUNLOP Tyre

D U N L O P



T Y R E S

WITH TEETH TO BITE THE ROAD

In Quest of Good Hotels

By ASHLEY COURTENAY

In London's West End Where Life is Still Gay

"AT the present time there is more life in London than anywhere else in Great Britain." So wrote Mr. Frank Fisher, general manager of the May Fair Hotel, the other day. And he is in a position to know, for the May Fair is one of ten London hotels which can be considered as social barometers.

With the commencement of the war, the entertainment life of London practically ceased. Theatres, cinemas, and hotel cabarets were temporarily closed down. London was indeed, for a while, a gloomy place.

Some six weeks later I wrote in these columns, "London is not such a bad place after all." We were beginning to get about again. The black-out proved penetrable. New plays abounded, and London hotels responded in their turn.

But as I still meet people in the fastnesses of the country who imagine that London is a place of the dead, and as I am often accused of enticing the town dweller to the country, I will this week reverse the process, and say to you who have not ventured up to London since the war, "London is inviting—always."

We will start with the May Fair, that social barometer, in Berkeley Street. Here the "glass" stands very high and steady. In spite of the lack of international trade, the May Fair is exceptionally busy, both above and below stairs. This can be attributed to the fact that the hotel has adapted itself to war conditions. Prices are lower, instead of, as one might expect, higher. Dress is optional at the dinners, supper dances and cabarets, and very reduced terms are in force for the services, as well as for business men who want to stay the night in town and entertain their friends.

This latter scheme has proved a popular innovation. The management of the May Fair had doubtless heard that the wives of Weybridge, Wimbledon, and similar residential areas were getting bored with the difficulties of arranging local dinners and dances as a result of the black-out, so the May Fair said in so many words to their masculine clientele, "Why not give a party at the May Fair, and bring your wives up to town? You can spend the night in the hotel at preferential terms, the ladies can have two days of shops and shows, and by reason of the fact that there is all the entertainment one wants at the May Fair in the evening, you can all completely dodge the black-out."

The May Fair has all the setting for family parties of this kind. The restaurant is not too large. Ferraro, who is so well known at the Berkeley Grill, presides over it and over you, if you are wise enough to let him. Let him prescribe for you if you are in doubt. From the soup to the savoury one is always safe in Ferraro's hands.

One has listened frequently at home to Ambrose and his band on the radiogram. There is a family feeling about meeting him in person at the May Fair, and a feeling of satisfaction in asking him personally to play your favourite tune. Then there is the May Fair cabaret. Just one or two well-known artists whose names and voices are already known to you. Ronald Frankau, for instance, to rub up your memory of history. Or the Western Brothers in familiar gags.

Perhaps the only thing one rather misses at the May Fair, or any of the principal West End hotels, these days is the lack of smartness due to dress being optional. Service uniforms abound, but one misses the white tie and the tails, and even the comparatively few dinner jackets. I am afraid we men folk are lazy when we have the opportunity, and though the May Fair and other hotels have to fall in with the present need, I hope that social fashion will soon dictate that evening dress is once more essential.

Last week I discovered another hotel in the West End, where, on a similar scale, the family atmosphere predominates. It is an hotel which will appeal to those whose incomes have shrunk, or have yet to grow. It is the Hotel St. Regis, with entrances on to Old Burlington and Cork Street, and hardly a stone's throw from Bond Street. So many people have asked me for a popular priced hotel like the Cumberland, right in the heart of the West End, that I was glad to discover St. Regis, though my only fear is that it will not be large enough to meet the demand.

The St. Regis was originally built as a block of service suites. Each suite consisted of a room, which, by ingenious arrangement, is a bedroom by night and a sitting-room by day. Each suite has its own bathroom, shower and telephone. The rates for Service men seems extraordinarily reasonable—10s. 6d. a night for a single room, or 15s. for a double. I thought there must be a fly in the ointment in the relationship to the cost of meals but it does not exist. The Continental breakfast is priced at 1s. 6d, and English breakfast at 2s. 6d. Every night there is an excellent dinner, dance and cabaret for 8s. 6d., and I have sampled it with a good deal of satisfaction.

There is an atmosphere of restfulness created by the quiet decorative treatment of candle-light at the tables, and soft dance music. There were one or two well-chosen cabaret turns, but the tempo of the dance band and the excellence of the dinner—not forgetting the vintage claret—eclipsed all else.

Mr. Ashley Courtenay is always pleased to advise "Sphere" readers of hotels, both large and small, known to him personally. Letters should be addressed to him, c/o the Editor, THE SPHERE, *32-34, St. Bride Street, London, E.C.4. Personal and telephone inquiries, however, cannot be accepted.*

Pain after Meals

Do you find you cannot eat a thing without pain and discomfort afterwards? That is because acid turns your food tough and you cannot digest it. 'Milk of Magnesia' Tablets relieve the acidity at once and your stomach starts digesting your food right away and finishes its work with perfect ease.

Your indigestion has vanished and need never return. Get a box of Tablets now and prove this at your next meal.

Neat flat boxes for the pocket, 6d. and 1/-. Also family sizes, 2/- and 3/6. Obtainable everywhere.

MILK OF MAGNESIA BRAND TABLETS

SLIP A 6D. BOX IN YOUR POCKET OR BAG

'Milk of Magnesia' is the trade mark of Phillips' preparation of Magnesia.

Tell the Brigadier

to postpone the parade for 15 minutes

Explain that I'm just enjoying

a CHURCHMAN'S No. 1

Churchman's No. 1 Cigarettes: a fine 15 minutes of smooth smoking · 10 for 8d · 20 for 1/4

c.338b

Branksome Tower Hotel stands on its own cliffs which include six hundred feet of sea frontage, ten acres of thickly wooded grounds, and a private sea promenade reached through beautiful winding walks, without crossing any road. No other hotel in England is quite like Branksome Towers, which excels in every direction expected of a first-class hotel. There are 4 Hard Tennis courts, Squash, Golf on several different courses, First-class Resident Orchestra and unexceptionable cuisine. Write for remarkable photographic brochure to A. BICH, Manager. 'Phone: Bournemouth 4000. 'Grams: Branksome Tower, Bournemouth.

BRANKSOME TOWER HOTEL

BOURNEMOUTH

The Cap Martin of England

PATRONISED BY ROYALTY

PRINTED IN ENGLAND by EYRE & SPOTTISWOODE LIMITED, *His Majesty's Printers*, at East Harding Street, London, E.C.4, and Published Weekly by ILLUSTRATED NEWSPAPERS, LTD., 32-34, St. Bride Street, London, E.C.4.—*February* 10, 1940. Entered as Second-class Matter at the New York (N.Y.) Post Office, 1903.

Winter in the Sun

Here, in this unspoilt corner of South Devon where sea, sun, and soft air combine to hasten the early spring, is this first-class hotel directly overlooking the water. Good Golf. Bridge. Private bathrooms and Suites.

Winter Terms from 5 Gns. a week

ROSEMULLION HOTEL
BUDLEIGH SALTERTON, SOUTH DEVON

Park your Family in safety at

HOTEL RIPOSO, BEXHILL

Even if *your* business is in London, you can send them easily by fast electric train.

Even if there's an air raid (very unlikely at Bexhill), the safest place is the seashore. HOTEL RIPOSO is almost at the water's edge. *Verb. sap.*

Write to-day for brochure.

For Winter or War-time residents
Safe, Sheltered and Sunny

- A 100 modernly equipped rooms.
- Bridge.
- Billiards.

The KEY Position
All the attractions of Bournemouth within a 1d. bus ride

BOURNE HALL HOTEL
BOURNEMOUTH

Resident Directors, Mr. & Mrs. R. J. Bray . . . under the same direction, Hotel Riposo, Bexhill.

CREST CROWBOROUGH 394-5 SUSSEX

COSY WINTER QUARTERS

From 4½ to 9 gns. a week. Special reductions for long stays, as well as special week-end rates for the Services.

75 minutes only from Victoria Station to Hotel door. And then? Central heating in every room. The best of good fare. Lift. American Cocktail Lounge. Many a sheltered nook in our lovely garden.

A Country House Hotel where comfort, beauty, convenience and safety combine.

BIRCH HOTEL HAYWARDS HEATH

Central heating. Large open fires. Telephones and running water in all bedrooms. 20 acres of grounds. Squash Courts free to residents. Frequent electric trains. London, 45 minutes. Brighton, 20 minutes. **Inclusive Terms from 4 guineas.** *Telephone: HAYWARDS HEATH 670*

FOR the dignity of the past and the improvements of modern times.

The King's Hotel, Brighton

Specially reduced terms for long term residence.

LUPTON HOTEL, CHURSTON FERRERS, SOUTH DEVON

A fast through train from Paddington will bring you to the Lodge Gates of this very real country house (once the home of a peer) situated amidst the lovely scenery of South Devon. Even if you are awed at the approach you will quickly thaw at your reception, for here is dispensed hospitality and homeliness in full measure. A good place to know of for a country house holiday. May we send you a Brochure?

R.A.C. Terms from **3½ gns.**

MAER BAY HOTEL, EXMOUTH, SOUTH DEVON.

Spring comes early to the Devon coast . . . and at the Maer Bay Hotel, on the sunny Exe estuary, a welcome to good living awaits you. Situated in a magnificent position facing due south, and overlooking the sea, the Maer Bay Hotel, with its first-class service, cuisine and comfort, provides the perfect winter venue. Golf, Tennis, Riding, Fishing. Fully licensed. A.C. and R.A.C.

Inclusive Terms from **4 gns.** per week.

GREENBANK HOTEL, FALMOUTH

A REFUGE FROM WINTER

Soft air, sunshine, and laughing waters without. Within, a haven of comfort. An inviting bedroom, private bathroom if you wish, or a suite. A first-class cuisine. A magnificent sun lounge, and a cheerful cocktail bar . . . all overlooking the water.

Winter terms from **4 gns.**

REDCLIFFE HOTEL
PAIGNTON, S. DEVON

In a romantic setting on the cliff edge. A charming mansion for long or short visits.
Fully Licensed

LODGE HILL HOTEL, PULBOROUGH, SUSSEX

FOR SECURITY, COMFORT, AND REST. One of the most beautifully situated Hotels in Sussex overlooking the Arun Valley, and surrounded by 30 acres pine trees and gardens. Fully licensed with all comforts and service of a Mayfair Hotel. Apply Captain Claude Waller for particulars. Telephone: Bury (Sussex) 111.

Terms **1 Guinea** a day. From **6 Guineas** a week inclusive.

IN THE VALE OF ETERNAL BEAUTY

MOUNT CRAIG HOTEL. *Near* ROSS-ON-WYE

Here at this country home of charm it is good to live . . . always

Roundabout Hotel, STORRINGTON, Nr. Pulborough, Sussex

GOOD GOLF. GOOD AIR. GOOD FOOD. GOOD BEDS. CENTRAL HEATING.

Now under the personal direction of Mrs. A. K. and Mr. A. G. Kempster (formerly of the Stafford Hotel, St. James's, S.W.1) *'Phone: West Chiltington 125*

CLEMATIS COTTAGE HOTEL, WASHINGTON, nr. WORTHING

A haven of content and character for a week-end or longer in the fold of the Sussex downs. Noted in particular for its cooking, and its home-made cakes, as well as for the discerning people who repeatedly stay there. Easy access to the sea, as well as the West Sussex Golf Club at Pulborough.

Inclusive Winter Terms from **3 Gns.**

AND HERE IS PEACE . . .

A sheltered park of 60 acres. A sun-trap 400 feet up. An hospitable and first-class hotel for the dark days of winter and war. London under an hour by train. Sporting golf course in the grounds.

THE SPA HOTEL ROYAL TUNBRIDGE WELLS

Write for tariff-booklet entitled "And here is peace." Telephone: Tunbridge Wells 1911

So Near and Yet so Safe

No need to worry about petrol restrictions. We are only 37 minutes by train from Paddington. Fast and frequent service and 2 minutes walk from the station. Here you will find a homely hotel with crackling open fires in the public rooms, central heating and gas or electric fires in all bedrooms. Incidentally, *every bedroom has its own private bathroom.* Squash and Golf can be had at Sonning 2 miles away, and a hard Tennis Court in our own 12½ acres of grounds. **Inclusive terms from 4½ gns. a week.** Telephone: Twyford 106

GROVE HALL HOTEL TWYFORD - BERKS -

Winter Warmly

Specially reduced terms for long period residence

at **THE GRAND TORQUAY**

Write S. R. PAUL for fuller details

AND *NOW*, Mr. Business-Man!

If you must stay within reach of Town during the war, why not make your base at

THE RED HOUSE, LEATHERHEAD

Frequent electric trains reach London in half an hour. A most comfortable, quiet hotel, a lovely garden, excellent tennis courts. Telephone: 2271

THE SPHERE REGISTER OF HOTELS

The majority of these hotels are personally known to our Hotel Correspondent, Mr. Ashley Courtenay, who will be pleased to give further details regarding them to readers who write to him, c/o "The Sphere."

ENGLAND

Aldeburgh.—Wentworth Hotel. Tel. 312 & 313.
Bath.—Lansdown Grove Hotel.
Bexhill-on-Sea.—Hotel Riposo. Tel. 472.
Blackpool.—The Headlands. A.A. & R.A.C.
Bognor Regis.—Royal Norfolk Hotel. Tel. 40.
Boscastle.—Welltown Manor Guest Hse. Tel. 17.
Bournemouth.—Bourne Hall Hotel. Tel. 5.
Bournemouth.—Canford Cliffs Hotel.
Bournemouth.—Tollard Royal.
Brighton.—The King's Hotel.
Budleigh Salterton.—Rosemullion Hotel.
Bushey.—Bushey Hall Hotel.
Cambridge.—Blue Boar Hotel. Tel. 3030.
Chipping Campden.—Cotswold Hse. Htl. Tel. 330
Churston Ferrers (S. Devon).—Lupton Hotel.
Crowborough (Sussex).—The Crest Hotel.
Dulverton.—Carnarvon Arms.
Dulverton (Som.).—Woodcote Hotel. Tel. 129.
Exmouth.—Maer Bay Hotel.
Falmouth.—Greenbank Hotel.
Folkestone.—Queen's Hotel. Telephone 2219.
Goring-on-Thames.—The Bull. Tel. Goring 57.
Haywards Heath (Sussex).—Birch Hotel.
Hove.—Dudley Hotel. Completely modernised.
Leatherhead.—The Red House Hotel.
Lytham St. Annes.—Clifton Arms Hotel.
Lyme Regis.—Hotel Alexandra. Tel. 10.
Manchester.—Bowdon Hydro.
Newquay.—Headland Hotel. Tel. Newquay 2211.
Paignton.—Palace Hotel. A.A.****
Paignton.—Ravenswood. Cliff Road.
Paignton.—Redcliffe Hotel.
Plympton (nr. Plymouth).—Elfordleigh Hotel.
Pulborough (Sussex).—Lodge Hill Hotel.
Ross-on-Wye.—Mount Craig Hotel.
Salisbury.—Old George Hotel. Tel. 3189.
Sanderstead (Surrey).—Selsdon Park Hotel.
Scarborough.—The Grand. 'Phone: 1053.
Sidmouth.—The Torbay Hotel.
Storrington (nr. Pulborough).—Roundabout Htl.
Torquay.—Grand Hotel.
Torquay.—Roslin Hall Hotel. Tel. 4373 (2 lines)
Treyarnon Bay (Cornwall).—Waterbeach Hotel.
Tunbridge Wells.—The Spa Hotel.

ENGLAND—*continued*

Twyford (Berks.).—Grove Hall Hotel. Tel. 106.
Washington (Sussex).—Clematis Cottage Hotel.
Weymouth.—Royal Hotel. Tels. 627 & 628.
Worthing.—Greystoke Private Hotel. Tel. 991.

GREAT NORTH ROAD

(Figures in brackets show mileage from London)

Catterick (229).—Bridge House Hotel.

ENGLISH LAKES

Keswick.—Borrowdale Hotel. Borrowdale 24.
Keswick.—Royal Oak Hotel.

LONDON

Ambassadors Hotel, W.C.1. Tel. Euston 1456.
Bailey's Hotel, Gloucester Road, S.W.7.
Dorset Square Hotel. Off Baker St., N.W.1.
S. Kensington Htl. Queen's Gate Terrace, S.W.7.
United Services Hotel, S.W.7. Tel. Wes. 7131.

SCOTLAND

Stranraer.—Auld King's Arms.

WALES

Llandudno.—Imperial Hotel. Facing sea.
Llangollen.—The Hand Hotel.

NORTHERN IRELAND

Belfast.—Grand Central Hotel.
Rostrevor.—Great Northern Railway Hotel.

EIRE

Dun Laoghaire (Kingstown).—Ross's Hotel.
Glendalough (Co. Wicklow).—Royal Hotel.
Greenore.—Great Northern Railway Hotel.
Greystones (Co. Wicklow).—Grand Hotel.
Kingstown (Co. Dublin).—Royal Marine Hotel.

Stop that **COLD** *with* **VAPEX**

There is no safer place **CHUBB**

BOVRIL

puts BEEF into you

PRINTED IN ENGLAND by EYRE & SPOTTISWOODE LIMITED, *His Majesty's Printers*, at East Harding Street, London, E.C.4, and Published Weekly by ILLUSTRATED NEWSPAPERS, LTD., 32-34, St. Bride Street, London, E.C.4.—*February* 10, 1940. Entered as Second-class Matter at the New York (N.Y.) Post Office, 1903.